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MANAGEMENT EDUCATION IN THE MILITARY CONTEXT

A STUDY PRESENTED TO

DOCTOR M. J. STECKLER

UNITED STATES NAVAL POSTGRADUATE SCHOOL

IN PARTIAL FULFILIMENT

OF THE REQUIREMENTS FOR THE DEGREE

MASTER OF SCIENCE IN MANAGEMENT

CHAPTER I

CDR. WARREN A. HIGLEY, USN
CDR. FRANCIS A. HANTZ, USN
LCDR. THOMAS C. ANDERSON, SC,USN
LCDR. JAMES J. STEIL, MSC,USN
LT. FREDERICK E. PERRILL,SC,USN
LT. EDWARD BOBOLA,MSC,USN

CHAPTER II

CDR. JOHN A. STRAND, USN
LCDR. JAMES E. LAW, USN
LCDR. NORDEAN T. HILL, USN
LT. FLOYD E. BENNETT,MSC,USN

CHAPTER III

LTCOL. FREDERICK D. LEDER, USMC
LTCOL. ROBERT W. MARTIN, JR., USMC
MAJOR PAUL A. WILSON, USMC

JUNE 1969

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MANAGEMENT EDUCATION IN THE MILITARY CONTEXT

FOREWARD

This study of Management Education in the Military Context is organized into three chapters. Chapter I presents a review of Academic Management Education as it has evolved in civilian universities and colleges. The handling of this material is based on the assumption that the education provided by these institutions has been developed primarily in response to the needs of industry. Chapter II covers Military Management Education at the level of an investigation into what the Naval Service defines as its need for management education. This material addresses the question: How does the Navy define and express its needs for management education? Chapter III provides information on where military management education can be obtained today, including curricula details, and assesses how these programs have been able to meet the needs expressed and implied in the preceding material.

The purpose of this study is to draw up a contrasting picture of three elements of military management education today: (1) the offerings of conventional civilian academic institutions in the field of management education, (2) the expressed needs of the military service for education in management, and (3) the management educational enterprises into which the military has ventured.

The study begun with, and its conclusions are oriented toward a specific "unifying question". This question was: "What kind of management education does the military officer

require?" Perhaps this question may not be completely answered in the pages to follow, but if the findings presented stimulate interest and produce a reevaluation of existing management curricula, they will have served their purpose.

ACADEMIC MANAGEMENT EDUCATION

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---

by

CDR Warren A. Higley, USN
CDR Francis A. Hantz, USN
LCDR Thomas C. Andersen, SC, USN
LCDR James J. Steil, MSC, USN
LT Frederick E. Perrill, SC, USN
LT Edward Bobolo, MSC, USN

June 1969

CHAPTER I

ACADEMIC MANAGEMENT EDUCATION

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CHAPTER I

ACADEMIC MANAGEMENT EDUCATION

This chapter discusses the academic/collegiate programs in business administration that have evolved over the past sixty years in order to prepare individuals for lifetime careers in the profession/art of management. A brief discussion on academic/collegiate efforts relative to the fields of public and institutional administration is presented for informational purposes only.

I. A BRIEF HISTORY OF BUSINESS EDUCATION

Throughout history the collegiate schools of business have ameliorated their curricula and educational philosophy to meet the changing demands of business. Conditions have changed since the founding of early business schools. As companies have grown in size and complexity, business has required managers with judgment and foresight. The descriptive and vocational course work offered in the old schools of business became insufficient for the needs of business. After World War II, and especially during the 1950's, there was widespread discussion of the need for change in the schools of business.[44]

To trace the growth of the present day business school, it is necessary to turn back the pages of history to the 1800's. Joseph Wharton, through his grant to the University of Pennsylvania, succeeded in founding the first school of business in the United States. Other business schools followed, reflecting a wide range of thought which could be traced to the founders, to early leaders in the field, and to their environment. Most business schools, however, emerged from the economics departments, and it was not

until 1910 that business courses outnumbered the economics courses that were offered. Business schools, after a good start, began to decline in esteem for several reasons. Most of the schools drew heavily on businessmen to teach on a part-time basis, and members of the faculty were engaged in employment by business. The resultant effect was a gradual withdrawal of the business school from the academic community. By 1914 business schools began to reassess and reorganize. Schools began to swing toward accounting as the nucleus of the business program. Another school emerged at this time into what is known as the generalist type school where the trend in curriculum was interdisciplinary in its approach with special emphasis on social sciences.

The next significant change in business education occurred during the 1940's. After World War II many colleges established business schools; however, the heavy demand for this curriculum by students had not been properly anticipated. The schools were not prepared to handle the high enrollment, and many new instructors had to be hired. Since there were not enough texts, in many cases instructors had to rely on their own experience or draw from the knowledge they had gained in preparing for advanced degrees. This had the effect of creating new courses in the business curriculum. The important contribution of this era was, however, to establish closer ties with courses outside those normally taught in business, to define more precisely the core of business courses, to place more emphasis on company management policies, and to analyze the decision making process in various business situations.[55]

Change seemed to be the order of the day as business schools began to make the transition to their present form.

> "The administration of modern business is now concerned with the analysis of problems, making of decisions, the formulation of policies, and the management of daily operations. It draws upon all departments of knowledge, sponsors research on a prodigious scale, makes use of staff experts in a variety of fields, and is itself an intellectual activity that now calls for talents of the highest order. The administrator must lend his voice to questions of public interest and public policy, and at times he is in need of broad comprehension and the qualities of statesmanship."

Business has become more technical and complicated. Operating units of business have expanded while the internal operations have grown more specialized. The coordination and direction of these activities have required hierarchies of management. The problems of business are no longer confined to the simple problems of trading or finance, and managers are now faced with the task of directing and supervising large companies under constantly changing conditions.[61]

II. THE CURRENT CURRICULA

A. GENERAL DISCUSSION. Business education is a term with many meanings -- from secondary school work to doctoral programs, from the education of future corporation executives to the training of high school teachers, and from the teaching of typing and filing to instruction in business policy and organization theory. This variety of instruction is matched by the diversity in the types of institutions which offer educational programs in business; secondary schools, proprietary commercial colleges, junior or community colleges, colleges and universities, and private business firms and their associations. Even if we look at collegiate business education, heterogeneity is still the keynote. Business degrees are conferred by four-year colleges ranging from converted normal schools to some of the better liberal arts colleges, by technical

institutes, and by multipurpose universities. These institutions are public and private, urban and rural, large and small, old and new, good and bad. The programs may be administered by academic departments or divisions, or by semi-autonomous schools or colleges. Work may be offered at the graduate or the undergraduate level or at both. Students may be full-time or, as in the case of the urban schools, a significant number may be part-time.

We have restricted our research primarily to collegiate business education, particularly as it is offered by separately organized schools or colleges of business administration. We shall, however, pay brief attention to the programs being offered in public and institutional administration.

B. BUSINESS ADMINISTRATION

1. A SURVEY OF THE UNDERGRADUATE CURRICULA

a) Objectives. An examination of official catalogues and bulletins of American business schools indicated that their objective is to prepare students "for positions of responsibility in business," or "for executive responsibility," or, even more broadly, "for careers in business."

Broadly speaking, there are three types of career objectives business schools have in mind in planning their educational programs.

The first objective stresses preparation for a career in business without regard to the kind of business or job, except that it assumes that eventually the future businessman will attain a position involving a significant amount of administrative responsibility.

The second objective also implies preparation for a lifetime career but puts the emphasis on imparting knowledge of subject

matter in some particular area of business, such as accounting, marketing, production, or insurance. This objective is narrower than the first; it emphasizes the need for more specialized knowledge and less need for the broader types of knowledge and abilities than does the first objective. On the other hand, the second objective recognizes the need of business for specialists and the fact that the earlier years of a business career are likely to be spent in more or less specialized jobs.

The third objective is not often admitted publicly and is never the sole career objective of a school or department of business. This is training for the first job after graduation and initial promotions. This objective plays a considerable role in probably the majority of undergraduate schools and a major role in many, although it is openly disavowed by the better graduate and undergraduate institutions.[30]

b) Type of Programs.

(1) Four year university or college level. The undergraduate schools of business have a responsibility for liberal as well as professional (business) education. The schools of business cannot avoid this responsibility by confining its jurisdiction to the last two years. It is widely accepted that in undergraduate years the goal of liberal education must take precedence over the goal of business education.[30] We, therefore, first focus our attention on the role of liberal education in the undergraduate business curriculum.

In order to settle the terminological difficulties arising from the dichotomy of "liberal" and "professional" education the following definitions are in order: professional courses are defined as those which have as their primary purpose the preparation

of students for a business career; liberal education courses will include all other courses offered. From the viewpoint of the business student, courses in the department of mathematics, English, history, political science, and sociology are nearly always general education courses, just as courses in accounting, marketing, management, computer science, and statistics are primarily "professional."

The official position of the American Association of Collegiate Schools of Business (AACSB) is that at least forty per cent of the total hours required for the bachelor's degree must be taken in subjects in the liberal education field.[19]

Because our immediate interest lies in professional management education the following discussion is concerned with the business core, that is, courses required of all business students regardless of the particular area in which they may choose to specialize.

In 1949 the American Association of Collegiate Schools of Business (AACSB) specified a core to which all members were to be held for the first time. It is an accepted fact that the core concept led to greater uniformity in requirements and to some raising of standards, particularly among the poorer schools. Appendix 1 provides a current (1968-69) listing of the accreditation standards of the AACSB. Appendix 2 provides a listing of those collegiate schools of business that are currently (1968-69) members of the AACSB. It should be noted that the schools associated with the AACSB rose from 37 members in 1959 to a present membership of 131 schools.

The growing emphasis on management has had a very important effect on the curriculum development in business education. This interest in management has taken two forms. First, the managerial

approach is stressed in many courses, with an increased emphasis on managerial problem-solving, particulary through the use of case studies. Secondly, management as a field of study has been recognized by the academicians.

The businessman's decision-making is done in an organizational context and is affected by that context. Hence, the businessman needs to know something about how human beings function in organizations, what conditions are necessary to secure effective action within organizations, and what problems arise when one attempts to make and to implement decisions within organizations.

The field of administration and organization has been generally broken down into four aspects as follows: (a) management analysis, (b) organization theory, (c) management principles, and (d) human relations.[30]

(a) Management Analysis. Management analysis is the rational approach to the making of decisions about the allocation of resources with the firm. What is involved is a study of the methods available for the analysis and solution of the substantive problems which are the concern of economic management. Management analysis draws on such fields as statistical decision theory, mathematical programming, business data processing, accounting, inventory theory, and motion economy, and includes much of what goes under the heading of operations analysis.[30]

(b) Organization Theory. Organization theory (or as it is sometimes called, the theory of administration) is concerned with the scientific study of human behavior in organization. It deals with how human beings function in organizations, what conditions are necessary to secure effective action within organizations,

and what are the problems that arise in connection with making and implementing decisions in an organizational context.

As management analysis has its roots in microeconomics, mathematics, statistics, business data processing, and accounting, so organization theory draws heavily on the behavioral sciences; in addition, it also can draw on such disciplines as mathematics, statistics, and biology. Organization theory is a synthesized discipline rather than an applied field, and as such it is not concerned with problems from the normative point of view. That is, it seeks to develop testable generalizations about certain aspects of human behavior but does not set out to prescribe what should be done to achieve particular goals.[30]

(c) Principles of Management. The field of management is concerned with describing and distilling the best of current management practices into a set of generalizations or principles. The fields of organization theory and principles of management overlap and supplement each other.

(d) Human Relations. Most schools require work in human relations, either in a separate course or as part of another course in management such as principles of administration or management, administrative practices, personnel management, and introduction to management. Although theory derived from the behavioral sciences may be utilized, the emphasis is usually on the development of rules and principles which can be applied readily to situations that managers are likely to encounter.[30]

Business firms are concerned with problems of economic management and such management is strongly conditioned by the market environment within wich it operates. The firm acquires men, money, and material, and combines them in order to offer something for sale.[40] It is

an understanding of this industrial complex that must be coordinated within the types of curricula offered to students in professional education.

Thus firms operating in commodity, labor, and financial markets, with problems of economic management can be considered under the headings of marketing, production, employee relations, and finance. Therefore, the traditional functional fields of the business curricula have both an internal-managerial and an external-market aspect; the marketing and marketing management, finance and financial management, and industrail relations and personnel management are an integral part of the training of any prospective manager.

The business students need some understanding of each of the kinds of markets within which the business firm must operate. This entails some study of the structure and functioning of commodity, financial, and labor markets. This inevitably means going to the underlying disciplines - to economics and other social sciences, including psychology and sociology - and it requires making use of the quantitative tools of statistics, operations analysis and accounting.[30] Each of these areas encompasses a variety of course offerings for the professional business education.

Accounting. The importance of accounting as a system of information and control has long been accepted by businessmen and business educators. There has been a recent trend to omit the procedural detail in the introductory course and move on to what is called managerial or interpretive accounting.

As part of his training in the informational and control uses of accounting, the business student receives some exposure to the subject matter now included in courses in cost accounting, budgeting,

financial accounting, and analysis of financial statements.[30]

Marketing. The area of marketing is a universal part of the undergraduate program. In addition to the required introductory course a student may choose as an elective one of the traditional courses, such as retail management, and sales management.[55]

Statistics. Statistics is closely related to accounting as an information-control device. As in the case of accounting, statistics is required by nearly every school of business. Emphasis is placed on training students to be interpreters or users of statistics rather than statistical analysts or producers.

Business Data Processing. Beyond the work in accounting and statistics as management tools, the student requires some further exposure to information and control systems and their role in business analysis and operations. This exposure is received through courses such as programming, data processing, business decision theory and operations analysis.

Economics. It is virtually a universal practice for schools of business to require elementary economics, usually a minimum of two semesters. In addition, more advanced courses are offered such as money and banking, public finance, national income accounting andmeasurement, and the role of nonmonetary factors in economic fluctuation.

Business Law. Business law, like accounting and economics, is found in practically every business curriculum. This area of study seeks to familiarize the student with the fact that all business must be conducted within the framework of the law, that such a legal environment forms the basis for rules of conduct among businessmen, and that a broad comprehension of the law is essential in setting

business policy. Such a course might include topics such as: the background, importance, and role of law in our society; the legal system of the United States and its workings; private property and contract as a concept of a free enterprise system; and the evolution of legal attitudes toward business, including the changing relations between business and government.[30]

Production Management. The introductory course in production management typically covers such material as a description of standard machine tools, types of factory buildings and plant layouts, systems of lighting, methods of job evaluation and time and motion study, methods of handling and storing materials, and the details of production scheduling. It may also include some introductory material on "management organization and principles" and a bit on personnel management.

A study of these functional areas for the freshman and sophomore students indicates the valuable role that junior colleges play in the education of managers.

(2) Two year junior college level. The Junior Colleges contribute to the education after high school. Filling their place in the scheme of business education, they function both as terminal - vocational schools and as preparatory institutions from which students may transfer to the business programs in the four-year colleges and universities. Junior Colleges offer the least specialized of the general business curricula, which generally includes English, economic principles, accounting, bookkeeping, American history and government, use of business machines, commercial law, selling, typing, and business arithmetic.[30]

c) Concluding Notes. The objectives of the American Colleges and Universities that are concerned with business degree candidates have been stated in general terms. The undergraduate

schools of business have a twofold responsibility to fill: liberal and professional education. This part of the book has emphasized the professional education aspect. No attempt has been made to describe each course offered in the business management area at specific institutions. For this information one must turn to the school catalogs. Appendix 3 provides a general listing of courses for undergraduate business administration programs offered in selected colleges/universities. No attempt is made in the subject appendix to differentiate between catalogue descriptions and actual classroom presentations. Further, no attempt was made to deliniate the several courses that comprise a given subject area; i.e., micro-economics, macro-economics, etc.

2. A SURVEY OF THE MASTERS' PROGRAMS

a) Objectives. There are a large number of business institutions which are well established in our society, but they have not yet reached agreement as to what their objectives for the masters program should properly be and how their objectives might be obtained. However, the business institutions role is broadly summarized as developing knowledge about management in five aspects.

(1) To bring together a competent group of people to work in the field.

(2) To provide these people with the facilities, resources, and incentives necessary to do the work in the area of management.

(3) To disseminate the research findings of faculty and students through publication to the profession and, ultimately, to practitioners.

(4) To generate a continous supply of educated personnel in the general area of management.[30]

(5) To lay the ground work and to provide the foundations of business principles on which the student can build through experience on the job and further formal training for his continued self-development.

In fulfilling these objectives the business institutions must be tied to the universities since they draw very heavily from so many different fields. This is not only for the benefit of the students but for the content of the curriculum.

It would be a great step forward if a clear-cut model of what a good business school should be were known. However, the very heterogeneity of business precludes formal structuring; so does the embryonic state of the social sciences, which support business education and bears somewhat the same relation to the practice of business that the natural sciences bear to the practice of medicine.[55]

The United States has experienced a continual growth in the business education at the graduate level since World War II. In 1959 there were 12 separate graduate schools of business and 146 other schools and departments of business which offered graduate degrees in the field of business.[55] A survey of the graduate schools, colleges, and universities today indicate that there are 32 separate graduate schools of business and 46 other institutions offering a graduate program in the field of business.[55] The growth is also reflected in the number of degrees presented. In 1957-1958 the existing institutions awarded 5,200 master's degrees and during 1966 there were 13,700 master's degrees awarded.

When the several institutions are judged on the basis of

abilities and interests of students and faculty, methods of instruction, content of curricula, and underlying education philosophies, there is a wide variation. The differences in these institutions at the masters level as reflected in Appendix 4 are indicated by the nature of the core programs, types of majors, degree of specialization required or permitted in subjects, and the extent of students' work taken in undergraduate courses.[55] The schools have structured their graduate business programs to center most of their work toward careers involving broad administrative responsibilities or on education in specific techniques. The exclusive graduate schools and a few schools that have the undergraduate and a graduate program tend to emphasize preparation for general management careers that do not depend on mastery of a body of specialized subject matter.[30] Most schools either stress preparation for specialized staff careers (including accounting) or are torn between a desire to emphasize a broad managerial approach or a command of specialized subject matter. In addition there is the problem of considering the extent to which the master's program should pursue the training of technical and research workers.

Some of the problems of business education are summarized by Roethlisberger.[58]

> It is a curious fact that there are certain areas of endeavor where those who teach do not practice and those who practice do not teach. In general, the skillful practitioners of business do not teach "economics" or "business" in our universities. Likewise, in general, those who teach economics in our universities do not practice business. Teachers of "government" do not often practice the skills of the politician or statesman; politicians or statesmen seldom teach government. This is not true in the fields of medicine or engineering. Here, more often than not, the men who teach are also practicing skills they are teaching.
>
> It is also interesting and profitable to note that in areas where those who practice do not teach and those who teach do not practice, knowledge has not advanced very far; whereas in areas where those who teach are practicing the skills they teach, knowledge has advanced very far.

b) Type of Programs. Considering the above and other differences the following types of master's degree programs can be distinguished:[55]

(1) A common type of master's program is the one year program with undergraduate prerequisites that do not fully fit the needs of the future administrator but are more for the staff specialist, research worker, teacher, or public accountant. These programs require prerequisites in the undergraduate level before the program can be entered. The programs tend to have little or no core courses in business subjects and emphasize specialized subject matter.

(2) The two-year program is one which does not require undergraduate prerequisites in business subjects but does require a solid core of graduate level courses oriented toward managerial problem-solving. The exclusive graduate schools are the chief proponents of this type and tend to fall into two subgroups. One group puts more emphasis on the underlying disciplines and subject matter and requires a field of specialization. The other group emphasizes the development of administrative skills, particularly through the use of cases, and have very little emphasis on subject matter.

(3) Another level requires one to two years of work for a master's degree. This group can be considered more appropriately as two subgroups. One group is a two year program divided into two parts. The first part is the core consisting of business subjects and allows a student with corresponding undergraduate courses to be excused from appropriate courses. The second part does not emphasize the subject matter but places the emphasis on

preparation for general management careers. The other subgroup allows students without the necessary prerequisites to spend the first year making them up into special graduate sections, and the second year has little or no core and is devoted to a field of specialization and electives. This may be considered as a combination of the other two master's degree programs.

Within the master's degree programs outlined above the various institutions are striving to meet the requirements of a curriculum with the students entering the programs. The objective is to have a student achieve an M.B.A. which is considered a post-baccalaureate professional degree for students planning careers in business or in some aspect of economic management in non-business organizations.[30] This is in line with the students pursuing the M.B.A. because less than half of the students in the M.B.A. program have had undergraduate degrees in business administration. There are two main difficulties resulting from such a student body. In most programs there is no clear distinction between the undergraduate and the graduate studies. In fact some students may receive duplication of work already completed. The other difficulty is that there is no clear direction which schools can follow in putting business studies on a genuine graduate level even if they are determined to do so.[55] The concepts or thoughts presented can mean a great deal or very little depending on the instructor's competence and imagination and the student's preparation and ability.

Except for "technical" jobs that require a specialized background in engineering, accounting, or one of the physical sciences, the students best equipped in the graduate business education are those with a broad undergraduate course with emphasis on English,

natural science, mathematics, history, economics and other social sciences. These students have the basic skills to accomplish the higher order of mental ability, mature judgement and personal qualities to effectively perform at the high-level professional training of the graduate level.[30] The broad undergraduate course and the graduate business education combine both to adequately develop the basic skills for continued self-improvement.

The subject matter offered in the various institutions generally falls within the core subjects and electives. However, since no standard prerequisite or undergraduate program exists for the master's level of business education, the schools may recognize the background of the students entering the program; and, depending which program the school is following, the new student will be treated in different ways. One extreme is that there is no recognition of past subjects taken and the student takes or even retakes the subjects listed in the curriculum. The other extreme is that all subjects taken are considered, and the master's program is shortened accordingly. Some schools consider only the prior business education, others consider only the liberal arts, education, and some consider both subjects in the master's program. These latter schools may require the students to take subjects in either field and may shorten the master's program by prior subjects in either field. The professional subjects that are chiefly at issue here are elementary economics, psychology and sociology, and mathematics.[60]

The core of required subjects leading to the M.B.A. includes: accounting, statistics, managerial economics, macro-economics, organization--administration, personnel behavior or human relations,

management principles, some work in the functional fields (finance, marketing, and production), some work in non-market environment (legal, social, political or intellectual environment of business), and business policy.[7] The electives include: a thesis, more advance courses in the core subject matter cited above, and other related subjects. In some institutions the electives tend to provide a major field, i.e., management (including general business), accounting, marketing and finance.[7]

Even with the various capabilities of the institutions involved in business education, the system is in the process of being upgraded. The procedure by which this is being accomplished is the accreditation procedures whereby standards are established by the American Association of Collegiate Schools of Business. The objective of this organization is to promote and improve the collegiate education for business. The association is composed of members from institutions offering approved programs of instruction in business subjects and whose intellectual climate insures the offering of programs of high academic quality. Appendix 1 specifies the requirements for accreditation standards for 1968-1969. The members of the association meet at least annually to conduct such business as may be required, including updating the standards for accreditation, if necessary. The accreditation standards must be met before an institution becomes a member, and then they must maintain these standards in order to continue to be accredited.

c) Concluding Notes. The objectives of the graduate schools of business have been stated in general terms. The graduate program builds on the material and experience that the student receives in the undergraduate educational program. Appendix 4

provides a listing of several master's level programs in business administration currently being offered by selected colleges and universities.[27]

3. A SURVEY OF THE DOCTORAL PROGRAMS

a) Objectives. Doctoral programs are designed to meet the ever increasing demands for (1) teachers (at the collegiate level), (2) research workers, and (3) technical business specialists.[49]

Quantitatively, the greatest need is for well trained and scholarly college teachers. However, the need is also great for well trained and imaginative research workers and business specialists. The efforts of these personnel are required for expansion in the knowledge of business behavior and for significant generalizations that can be taught. Doctoral programs in business, therefore, should prepare students to teach and for careers in research and the technical business specialties.

The Doctor of Philosophy (Ph.D.) degree is offered by schools with a "traditional" orientation to education. This program emphasizes scholarship, and an advanced command of specialized subject matter. Two foreign languages are usually required, as is an elaborate dissertation which allegedly makes an "original constribution to knowledge." As applied to business administration, the traditional program is likely to emphasize theoretical analysis, some command of research tools, and in general the detached view of the scholar-observer.[7]

In contrast, the Doctor of Business Administration (D.B.A.) degree, a professionally oriented doctoral program tends to stress the point of view of the business manager. The emphasis is on

how managers go about solving business problems. The doctoral candidate is being trained chiefly to teach future businessmen, to prepare teaching materials, and to keep informed regarding the best of current business practice. This kind of doctorate builds on the foundation of the M.B.A., and there is little emphasis on either theoretical abstractions or refined research methods. There are no language examinations, and there is only a minimal thesis requirement.[7]

b) Types of Programs. There are four broad types of doctoral programs that are characterized by a school's general approach to doctoral training and the field of business administration. These programs will be considered under the following headings: (1) programs which view business administration as primarily applied economics, (2) those that emphasize a broad background in business, but chiefly in terms of subject matter, (3) those that concentrate on a special field within business, again with a subject matter emphasis, and (4) those that emphasize organization and administration in their approach to business problems.[30] Naturally, not all doctoral programs fit neatly into one of these categories, but the classifications have some descriptive, as well as analytical, value.

(1) The Applied Economics Programs. The first type of program, which approaches business as applied economics, is probably still the most common. As offered by some business schools, this program evolved out of the traditional Ph.D. in economics when the business faculty began to offer its own doctorate but retained the emphasis on research, essentially the same requirements in economic theory, and the same language and thesis requirements.

It was found that the functional fields of marketing and finance

and the industrial fields of insurance and transportation fit easily into this pattern, as do industrial relations and statistics. Schools with this sort of emphasis on applied economics generally do not view with favor the fields of personnel administration, human relations, or organizational theory; they do relatively little case teaching; they tend to have extensive business contacts; and they seldom permit the substitution of business tools (e.g., accounting) for one or both of the foreign lanaguages. The schools with this kind of a program are likely to have a tradition of scholarship and tend to maintain reasonably high academic standards. The are inclined, however, to be unsympathetic to the view that treats business administration as an independent discipline, with its own methodology, philosophy, and body of knowledge. There is also likely to be relatively little emphasis on managerial problem-solving in their treatment of the various business fields.

(2) The General Business Programs. This calls for a broad command of business subjects but does not emphasize a required core in economic theory. The student must offer work in a number of business fields, but no field is designated as a major field, although one is usually the dissertation field, and no particular area of business (or economics) is considered so fundamental that it is required of all candidates. Typically, the doctorate is based on the M.B.A. degree. The program is presented as if business administration were essentially a collection of separate business specialities rather than an integrated discipline. The requirement of an outside minor field contributes to the emphasis on breadth.

(3) The Special Field Programs. In this type of approach one of the business fields chosen by the student is

designated as a major field and receives a greater stress than do the others. The faculty and the student think of the doctorate as being in marketing, accounting, etc., even though the degree normally bears a more general designation. The level of competence required in the areas of business, other than the major field, is typically not much, if any, higher than what would be expected of an advanced undergraduate or M.B.A. student. Little attempt is made to view business administration from the point of view of managerial problem-solving, and management is likely to be considered just another field coordinated with, for example, finance or statistics. Two foreign languages are typically required; not many members of the faculty are likely to be sympathetic toward teaching by the case method; and considerable emphasis is put on the dissertation. As schools in our first approach consider economics to be the best undergraduate preparation for a doctoral candidate, so schools with this third type of program favor work in business administration as the best kind of undergraduate preparation.

(4) Programs Stressing Administration. This approach features in one way or another the central theme of administration and managerial problem-solving. Business administration is viewed as more than either applied economics or a collection of special fields of business. In effect, the attempt is made to develop a doctoral program on the assumption that business administration can be viewed as a more or less independent and integrated discipline. At least two variants of this approach need to be distinguished.

The first is represented by the Harvard Business School. Harvard's doctoral program was "designed for advanced study of the

kinds of thinking and methods of analysis useful in administration and to acquire knowledge of the background and facts of business life as they bear importantly on the administrative process."[34] But an understanding of the "administrative process" was not to be obtained by mastering some body of systematic knowledge. In this respect Harvard's approach to the M.B.A. carried over to its D.B.A. program. Administration is an "art", involving "wisdom" and "judgement"; it does not rest on any central body of theory or principles that must first be mastered. Since a corollary of this view is that business administration should be taught largely by the case method, Harvard has put considerable stress on training in the preparation and use of cases.[51]

The second variant of the administrative approach seeks to base the study of managerial decision-making on a central core of systematic knowledge and analytical tools. "Administration" is looked on as a currently evolving synthetic discipline which rests ultimately on an array of underlying fields, including, but not confined to, psychology, sociology, and economics. Stress is also placed on the development of technical aids to rational decision-making and a research methodology, with a consequent emphasis on mathematical and statistical analysis and, again, on the analytical tools of economics and the behavioral science. It might be the scientific study of decision-making in an administrative context, chiefly but not exclusively in business.

c) Concluding Notes. Actually, the doctorates offered by most schools have features drawn from two or more of the programs outlined above and in that sense are hybrids. Appendix 5 (section 1) presents in tabulated form, the requirements for the doctoral degree in business administration in eleven co[illegible]s and

universities. Section 2 of the same appendix provides in detail the nature of the doctoral programs in 8 colleges/universities. However, the general direction which the doctoral programs in the best schools will take in the years ahead is beginning to be clear. The application of the behavioral sciences is being stressed more than in the past; so is training in quantitative methods; and work for the doctorate is increasingly being built around an analytical core that encompasses more than conventional economic theory. The theme is becoming more and more "the scientific study of managerial decision-making."[49] The business schools are beginning to shed the traditional language requirements, and it can be expected that some attempt will be made to find a satisfactory substitute for the conventional thesis requirement.

Appendix 6 lists the number of doctorates conferred by American universities and colleges between 1861-1966. Appendix 7 lists the number of doctorates, by year and subject, earned in American universities and colleges between 1926-1966. Appendix 8 lists the number of doctorates, by subject and institution earned between 1957-1966.

4. UNIVERSITY PROGRAMS FOR PRACTICING EXECUTIVES

a) Objectives. Education for business competence is a continuing process that should extend throughout the businessman's career. The demand for formal business education is not confined merely to those who look forward to future business careers; those already in business also need additional education and training.[23]

Of the several million businessmen in the United States, there are few who cannot benefit from additional education and training;

and the number who currently seek such educational help, in one form or another, exceeds the number of students enrolled in the full-time degree programs in the business schools. As Clark and Sloan have put it, education has "come into its own, not only as a prerequisite to an industrial career, but as a continuous adjunct to it."[18]

b) Type of Programs. This demand for continuing business education is met from several sources: individual employers, trade associations and other business supported groups, the public school system through their adult education activities, and the colleges and universities. Despite the unquestioned importance of all the sources, this section will be confined only to the educational activities of the four-year colleges and universities. These activities fall into the following three approaches: (1) management development programs, (2) evening and extension courses, and (3) special conferences, institutes, and short courses.[30]

(1) Management Development Programs. Management development represents one of the newest and most rapidly growing of the educational services which American universities offer to business. In 1950, only four such programs were in existence; M.I.T.'s Executive Development (Sloan) Program, which was started in 1931; Harvard's Advanced Management Program and Chicago's Executive Program, both begun during World War II; and Pittsburgh's course in Management Problems for Executives, the first of the postwar programs. By the end of 1953, there were seventeen underway;; by 1955, more than two dozen; and by 1958, there were over forty. The movement has extended to other countries, not only to Europe, but also to South America and to the Middle and Far East.[42] Appendix 9[34] provides a description of Harvard's Advanced Management Program,

a program designed for executives who have reached the policy making level of their organizations. Appendix 9[34] also provides a description of Harvard's Program for Management Development designed for promising young managers.

Management development programs differ in several significant respects from the other types of education offered by the universities. First of all, there is the marked difference in clientele. Management development programs are limited to responsible and experienced businessmen, that is, to "executives." Second, participants are, in virtually every case, sent by business firms which take the initiative in selecting those who are to attend. Third, the programs are on such a scale that they require a substantial investment of time and money, an presuppose, therefore, results of some significance. A corollary of this third characteristic is that the students are usually absent from their normal responsibilities for a considerable length of time, which may range from two weeks to a year.

While these programs can be classified in various ways, it might be well to use a simple three-fold differentiation: a) programs aimed at developing general managerial competence, with considerable emphasis on improved understanding in the more important subject-matter fields of business but with no attempt to concentrate on the special problems of any particular industry or function, b) programs that do so specialize on special problems of a particular industry, and c) programs that seek to improve managerial competence by concentrating on non-business rather than business subjects.

(a) Programs To Develop General Managerial Competence. It is this first type of program that is usually meant

when the term "management development" or "executive development" is used, and most of the university programs for executives fall into this category. These programs all have the same ostensible objective: to improve managerial competence -- or, as it is sometimes put, "executive effectiveness." What this means in somewhat greater detail has been summarized by the National Industrial Conference Board as follows:[51]

> Through these courses, the educational institution is trying to teach the executive to improve his thought processes and his analytical abilities. Most university people would be happy if they could be sure that their executive students were going home with the habit of sound thinking thoroughly fixed.

Beyond this single broad objective are several others that seem to reflect the stated aims of most or all of these university programs. These objectives may be expressed as follows: (1) To broaden the outlook of the individual, to give him an appreciation of his responsibilities in community affairs and of the other areas of management outside his own specialty. (2) To teach the executive to think through the problems that confront him in his job, whatever that may be. (3) To make the executive a more effective executive in his present job. (4) To increase the potential abilities of the executive to assume future higher-level responsibilities and positions.

(b) Specialized Programs. These progrmas deal with the special problems of a particular industry or business function. The aim is usually twofold: to improve general management skills and to develop the special kind of competence presumably needed in a particular field of business. The second objective means that considerable stress is placed on an appropriate body of specialized subject matter.

Programs of this type are offered by a number of business schools, sometimes in conjunction with a trade or professional group, for example, one of a bankers' associations. They tend to be shorter than the general type of executive development program; some are brief enough to qualify as a short conference.

Examples of this type of program are the banking schools at a number of universities, the Transportation Management Program at Columbia, the Institute of Investment Banking at Pennsylvania, the Graduate School of Savings and Loan at Indiana, the Management Development Conference for mutual savings bank officials at Dartmouth, and the Executive Controls Programs at Syracuse.[55]

(c) Liberal Arts Programs. One of the most striking recent developments in the field of education for practicing executives has been the initiation of a number of programs that concentrate exclusively on the liberal arts and eschew all business subjects. The emphasis in these programs is on the liberal arts primarily in the sense of the humantities, although the social and physical sciences are not ignored. The first of the Bell System programs, begun by the Bell Telephone Company of Pennsylvania at the University of Pennsylvania in 1953, included, during one year, material in the fields of logic, social science, history and meaning of science, industrial relations, and American civilization.[8]

Liberal education for executives can serve two interrelated purposes. It may seek simply to develop the "whole man" so that he can live a fuller and more fruitful life and be a more useful citizen. A liberal education can also help, directly or indirectly, to improve managerial competence. It is this latter view that lies behind the Bell System's liberal arts program, just as it provides

the basis for the many statements by prominent executives regarding the value of a liberal education for businessmen. Liberal education can contribute to executive effectiveness in a number of ways - through a wider knowledge of the non-market environment of business, through the development of breadth of perspective and flexibility of mind, and through the inculcation of new attitudes of mind toward oneself, one's job and company, and one's place in society. In general, the idea is that by helping to be better men, liberal education helps executives also to be better businessmen.

(2) Evening and extension courses. Business schools that have evening programs offer in the evening essentially the same curriculum that is available to day students. The evening program may go further, however, and offer additional specialized and vocational courses that are not given in the day. Practice with respect to offering degree credit for specialized courses with a strong vocational orientation varies. Boradly speaking, three different policies may be followed.

Some schools give degree credit in the evening only for courses equivalent to those in the regular day program and exclude from the latter all courses with a strong vocational orientation. If any of the latter are offered in the evening -- for example, a C.P.A. review course -- no degree credit is granted. At the other extreme, some schools not only offer a range of narrow vocational courses to both day and evening students, but also give degree credit for them. Some schools seek unsuccessfully to straddle the issue, refusing to offer certain types of courses during the day but giving them with degree credit in the evening. Where this occurs, one can expect that many vocationally minded day students will seek out these evening courses, thereby foregoing more essential work they might

have taken.

Similar problems arise when the business courses are offered by an evening college or extension division. Most such courses are similar to daytime courses and count toward a degree. However, the number of non-credit courses is growing as businessmen turn to the universities for specialized educational help of a sort that does not fit into the framework of the regular academic program. Often such specialized courses reflect the interests and pressures from particular trade or professional groups.

Courses which presumably contribute in a fairly direct way to the student's business competence (cultural courses excluded) can be of three broad types.

The first group consists of basic courses, more or less identical with those given during the day, in the fundamental business subjects and related business fields. The second type consists of both elementary and advanced courses in the various specialized business fields such as insurance, real estate, retailing, advertising, and transportation. Included in this group are those special courses aimed at preparing the student for professional-type examinations such as those given for the C.P.A. or C.L.U. certificate. These courses may or may not carry degree credit. The third category of offerings include courses dealing with "new developments" in various fields. Such courses are becoming more popular in such areas as tax accounting, data processing, and operations analysis.

Evening courses may be integrated into various kinds of degree and certificate programs. Certificate programs are usually designed to meet the needs of particular occupational groups, as in insurance, advertising, industrial relations, retailing, or industrial management. Some students seek to earn a degree to make up for a college education

that was missed earlier and which cannot be sought during the day. Some are candidates for an advanced degree, usually the M.B.A.. Some seek to develop or improve some form of specialized business competence by taking the courses specified in a particular certificate program. And many, without the aim of earning a certificate or degree, take the particular courses which they think will remedy specific deficiences that they may have or add to their skill or knowledge along particular lines.[55]

(3) Institutes and conferences. Every year, thousands of businessmen attend a wide range of conferences and institutes uder university auspices. These affairs are tailor-made to fit the interests and needs of particular groups. They are typically of short duration, seldom lasting longer than a week and usually only a day or two, and they are frequently co-sponsored by a trade or professional group and the university.

There has been a substantial increase in the demand for these short programs. The range of subjects that can be dealt with is virtually limitless, including problems of small business, estate planning, labor arbitration, transportation and traffic management, authomation and data processing, and some aspect of banking or real estate or insurance, Increasingly, conferences are being held for firms in particular industries: life insurance underwriters, mortgage bankers, building materials distributors, retail hardware dealers, petroleum jobbers, furniture manufacturers, motor vehicle fleet operators, and many others. Some of these programs are aimed at employees below the managerial level, for example, a Prescription Shoe-Fitting Workshop, a Secretaries Institue, and many programs on some aspect of selling. Programs are arranged not only for

industry or professional groups but also for individual companies, particularly in the form of so-called "short courses."

A "short course" typically consists of a series of meetings, usually weekly, extending over a period of up to two or three months. It may be on or off the campus. These courses may be offered for individual companies or for a wider audience. Several hundred such courses have been given in various parts of the country for small businessmen under the joint sponsorship of various universities and the Small Business Administration. When given at the request of a single company, the short course may be a "pre-packaged" course which has been given before or it may be tailor-made to the company's specifications.

The short conference-type programs are usually directed toward those in a particular occupation or functional specialty (accountants, personnel managers, etc.) or toward owners or managers in a particular industry. While a few draw from more or less of a national audience, participants come predominatly from the local area. For the most part, these programs attempt to do one of several things: review recent developments of interest to practitioners in a particular field (for example, taxation), help improve general business competence and technical skills among members of a particular group who have a range of problems in common (small businessmen, bankers, sales or traffic managers, etc.), review new developments in a body of specialized subject matter (such as data processing or operations research) that may be of wide interest, and, finally, provide a general mental stimulus and broadening influence.

Some universities have residential centers for continuing adult education, and their business conferences are held chiefly

at these centers. Two substantial examples are the Continuing Education Centers at the University of Georgia and at Michigan State University, which have modern hotel, conference, and classroom facilities. Continuation centers exist also at several other state universities and land grant colleges, not to mention the special conference facilities available at such places as Columbia University's Arden House or New York University's Gould House. The more elaborate of these conference centers are costly to maintain, and the substantial overhead expense creates some pressure to keep them continuously occupied with paying guests who are attending conferences.[30]

c) Concluding Notes. Little doubt can remain that the business schools have a considerable opportunity for useful service in the field of adult business education. Directly, or through their sister evening colleges and extension divisions, they can make a significant contribution to the needs described at the beginning of this section. If, however, the universities are to make their maximum contribution, they must develop a carefully formulated educational philosophy that will help them decide how much emphasis they should place on this type of educational service in view of the other demands on their limited resources. It will also help them decide what particular educational needs of the business community they should try to satisfy, and how this can best be done.

In addition to their desire to provide a service of clear value to the business community, the universities have other reasons for wishing to satisfy some considerable part of the demand for adult business education. In particular, the universities stand to benefit in three ways: improved relations between the university

and the business community, increased revenue for the university (some of which may accrue to the business school), and gains to the faculty in income and in the extent of their contacts with the business world.

C. PUBLIC ADMINISTRATION

1. GENERAL DISCUSSION Defined in broadest terms, public administration consists of all those operations having for their purpose the fulfillment or enforcement of public policy. This definition covers a multitude of particular operations in many fields--the delivery of a letter, the sale of public land, the negotiation of a treaty, the award of compensation to an injured workman, the quarantine of a sick child, the removal of litter from a park, the manufacture of plutonium, and the licensing of the use of atomic energy. It includes military as well as civil affairs, much of the work of courts, and all the special fields of government activity--police, education, health, construction of public works, conservation, social security, and many others. The conduct of public affairs in advanced civilizations requires the employment of almost every profession and skill--engineering, law, medicine, and teaching; the crafts, the technical specialties, and the office skills.[71]

Woodrow Wilson defined public administration as those efforts required "to straighten the paths of government, to make its business less unbusinesslike, to strengthen and purify its organization, and to crown its duties with fruitfulness".[65]

A system of public administration is the composite of all the laws, regulations, practices, relationships, codes, and customs that prevail at any time in any jurisdiction for the fulfillment or ex-

ecution of public policy. The art of public administration is the direction, coordination, and control of many persons to achieve some purpose or objective. A public administrator is consequently one who directs, coordinates, and controls the activities of others.[71]

The following brief discussion is presented to add additional perspective relative to the field of public administration. Within the framework of Western civilization two great systems of government administration have developed. One is the Anglo-American, based on a deep-seated preference for self-government in local communities, wide citizen participation, dispersion of authority, well-established responsibility of the administrative system to the legislative body, and the responsibility of officials to the ordinary civil courts at the instance of the private citizen. This system prevails in Great Britain, in the Dominions, in varying degree in other portions of the British Empire, and in the United States.

The other is the French, derived like the Anglo-American from the middle ages and formulated by Napoleon, based on the concentration of executive power, on the dominance of national over local authorities, on the professionalization of the public service and its psychological separation from the body of citizens, and on the responsibility of officials to a separate set of administrative courts. The French system, which the Prussian closely resembled, prevails not only in the country of its origin, but in Belgium, Holland, Spain, Italy, the Balkan countries, the near East including Turkey, South and Central America including Mexico, and with variations in the colonial empire of the Latin countries. The Russian and the Chinese administrative systems are indigenous to their peoples, developing their own forms and character in response to national habits and preferences.[31]

2. THE STUDY OF PUBLIC ADMINISTRATION There is an almost bewildering variety of the types of training available in the field of public administration. The following institutions offer some of the older and more significant programs:[31]

Bureau of Public Administration, University of Michigan
Maxwell School of Citizenship and Public Affairs, Syracuse University
The Woodrow Wilson School, Princeton University
Cooperative Training Program for Public Service, University of Cincinnati
Bureau of Public Administration, University of California
National Institute of Public Affairs, Washington, D.C.
Public Administration Training Center, University of Minnesota
Graduate School of Public Administration, Harvard University
Graduate Division for Training in Public Service, New York University
Southern Regional Intership Training Program, University of Alabama and other cooperating institutions
National Training School for Public Service, Wayne University

There are many more. Some institutions like the University of Southern California, American University, Wayne University, New York University, and the Southern Regional Training Program emphasize in-service training carried on in cooperation with public or semi-public agencies. Others, such as the University of Chicago and the University of Wisconsin, train a great many students for public service without any formally organized programs. Some programs are designed to train "bureaucrats"; others seek to turn out civic secretaries and researchers for civic organizations. Clearly, there is no definite pattern as to either method or objective.

Appendix 10[15] outlines the public administration program at the H. H. Rackham School of Graduate Studies at the University of Michigan. It will be noted that the program of instruction is "flexible, meeting the individual needs of the student." In addition Appendix 10[14]

outlines the program offered by the Woodrow Wilson School of Public and International Affairs at Princeton University. The program emphasizes preparation for executive careers in public affairs in both the domestic and international fields. Approximately two thirds of the student's time is centered on a core of graduate courses in Public Affairs. The Public Administration Program offered by the Graduate School of Public Administration and Social Service offered at New York University is also presented in Appendix 10.[13] This program "provides technical competence for the job, but goes beyond and regards a broad cultural background and an awareness of the wider implications of special problems dealt with as essetial qualifications."

c) Concluding Notes. At the present time the problem of training civil servants is not amenable to any single solution. A huge bureaucracy needs a tremendous variety of skills, backgrounds, and professional preparation. Considerable research is needed before it can be said with confidence that this or that is the proper path to be taken in developing the required skills. Sufficient experience is available, however, to indicate that the following combination of approaches may be fruitful:[13]

(1) Undergraduate Education. Undergraduate training should probably emphasize the liberal arts and general education approach. There should be a small core of orientation courses in public administration offered in the department of political science. A social science major, including at least one course in statistics, is partciularly desirable for those intending to become administrative generalists. Courses in Administration should be required in professional schools such as engineering and forestry.

(2) Pre-service Graduate Education.

The traditional M.A. and Ph.D. should continue to give students a broad philosophical, historical, and cultural background. These individuals should find their place among the "civilized" bureaucrats, i.e., they have developed a sensitivity to the public interest, possess a tolerance which comes from a humanistic education, and recognize the personal needs and desires of their colleagues as an integral part of their work behaviors. The future will require more social scientists trained in empirical methodology: persons who can design studies involving the gathering of large-scale data and carry through the interpretation of results. The specialized degrees of M.S. in Public Administration and Doctor of Public Administration should continue to develop persons skilled in the processes of organization and management.

(3) In-service Collegiate Education.

Metropolitan universities should offer evening courses on the collegiate level. Programs like that of the Graduate School of the Department of Agriculture should be encouraged. Special "institutes" should be offered by qualified universities for officials detailed for full-time study. The Harvard Graduate School of Business, for example, has conducted courses for the military in areas such as accounting and supply.

D. INSTITUTIONAL MANAGEMENT.

1. GENERAL DISCUSSION. The purpose and objectives of education in the field of institutional management are similar to the purpose and objectives in almost all other related fields such as business administration and educational administration and management: (1) To increase the breadth and depth of the knowledge in the field of institutional management by research and concentrated study, (2) To prepare individuals for the first job after graduation

and initial promotions in their field of choice and specialization, and (3) To provide the industry or institution with knowledgeable individuals to enhance their operation and management.

2. THE STUDY OF INSTITUTIONAL ADMINISTRATION. The history of institutional management parallels that of other fields. With the tremendous growth and development of big business in the fields of public and private services, there was created a vacuum of skilled and knowledgeable men to manage and administer the vast resources which had been accumulated to provide for the provision of these needed services such as hospitalization, lodging, education, nutrition, etc.

It is a common "Darwinism" that nature abhors a vacuum. Man, always searching for new horizons to explore and new niches to occupy, began to fill the void. Since the latter part of the 1940's and the early 1950's, a broad and rapid proliferation of educational courses and programs in many fields including the field of institutional management has taken place. A short tour through a current issue of "Lovejoy's College Guide" and a few of the major college course outlines and catalog descriptions will provide sufficient evidence for substantiation.

The current "State of the Art" in institutional management is presently occupying a position near the midline between vocationalism and professionalism. However, the movement is almost entirely in the direction of the latter. Separate courses and entire programs have been developed for specific institutional management areas. For example: in accounting, marketing, purchasing, theory and policy, the basic principles and tools of the trade have been extracted and applied in a more narrow and a more specific area

such as hotel or motel accounting, restaurant accounting, food purchasing and marketing, principles of hotel or hospital organization, principles or theory of hotel or hospital administration or management, etc. - the list could go on ad infinitum. Appendix 11 provides a brief but revealing insight into the institutional management education provided.

3. CONCLUDING NOTES. As previously stated, the trends are almost entirely toward the direction of professionalism and specialization. As each year passes, more and more specific areas are being subjected to scrutiny and dissection. One of the most recent and poignant examples of this is the chapter on "Medicare". When Title I, Social Security, provided its program of "Medicare", there were little or no facilities for provision of care for the aged. Since then we have seen spring up almost overnight a vast array of nursing homes for the care and treatment of the "senior citizen". This created our "Darwinian" void or vacuum of skilled and trained personnel for the management and operations positions in this field. Numerous institutions of education, such as the George Washington University, now offer specialized degree programs in "nursing home" administration and management.

As a concluding remark, the trend and implication for the future can best be stated by the following: The river of education continues and can be expected to continue to flow toward the sea of specialization.

E. EMERGING TRENDS IN MANAGEMENT EDUCATION. When examining the type of education that will be required in the future, one must project the type of environment in which the businessman will be operating in the 1980's and into the 2000's. Rapid change is the

order of the day. Technology is increasing at an exponential rate. Methods of production and distribution in industry succeed one another in quick succession. Organizational structures are revised to adapt to changing conditions and to meet changing methods. The industrialized power of new nations is often potent enough to affect the course of world history.

These rapid changes apply massive pressures on educational institutions to keep their curriculums up to date with the lastest knowledge and at the same time retain the best of the old. Thus, the facts that are tried and true must justify their places by showing their relevance in the midst of change. The question of obsolescence is raised also; the curriculum, teacher, plant, administrative structure, and parental perspective are affected. Today people are not as sure of the correctness of what has been done before.

With the environment changing rapidly the presently accepted habits are potentially inadequate for tomorrow. Educational institutions must become more flexible in order to make changes when appropriate. As with all organizations, there is a certain resistance to change. Organizations of long standing are generally conservative and devoted to past procedures. They may be changed in a crisis by the infusion of new personnel, however. The more radical changes and new adaptions are usually the result of new organizations. Thus there is a growing division in the ranks of the colleges. In the society of the future some colleges will retain the older programs while others will introduce "new combinations and radically new formulations." Examples are the substantial educational systems of industry and the military.

In its present form education is closely coupled with the economy. It is inherent where technology plays such a large role

that education becomes more involved in the real world. In the future education will become more closely linked to other institutions that are constantly affected by changing technology. Foresight and understanding is important in the leadership in education so that avenues of direction will lead to change along a desirable course. The rate of change is so great that to predict the future is barely sufficient to maintain the present.

The problems business will have to face in the future are many and varied. Future changes in the size, composition, and location of our population affect the production and distribution plans of businessmen.

Patterns of consumption are changing, partly as a result of shifts in age groups in our population. Income levels have risen, and services and choice of products have increased. Capital is being used differently in business today. Funds previously tied up in inventory are now available for research and development. Research has led to the development of new industries and new technologies.

The country's international position is changing. By 1980 the population of the U.S. will reach 260 million. There will be a steady rise in demand for household items and new jobs. 104 million of these people will be under twenty. To meet their needs new schools and teachers will be required. This means higher tax revenues resulting in a different allocation of income.

By 1980 the increasing number of older people will provide a growing market requiring a rising level of agriculture and business output. The patterns of employment of the working age people will be affected by this expansion of output. Government policies will be influenced by the growing number of older voters. Social

benefits to the aged will be affected also.

Working age groups will not increase quite as rapidly. However, the pre-job and the retiree age groups will increase in size. The increased leisure time expected in the 1970's will have to be postponed. During the 70's efficiency will have to be improved in the area of human resources if we are to maintain our present standard of living. We will have to improve our productivity if we are to continue to produce all that society wants. By 1980 the trend should equalize so that there will be at least as many people entering the work force as those leaving. The potential problem is that during the 60's we have been attempting to expand output per employee by additional mechanical and electrical production equipment. This will mean that by 1980 we may not need as many additional employees who will be reaching the 20-65 age group. At that time we will have to find a way to absorb these people in jobs or they will not have the incomes to sustain their market demand. If this should happen, the standard of living will decrease and there will be the added burden of supporting larger numbers of unemployed workers.

By 1980 the number of people enrolled in formal education programs will have doubled from the number enrolled in 1955. This will have a considerable impact on the quality of people entering employment. One result of this will be to upgrade the capacity of people to adapt to increasing technological requirements of jobs. Continued technological increases could cause a decline in the number of production employees required in the economy.

As the nation's population continues to grow, at least 80% of the additional population will either originate in or move to heavily populated areas. The migration from rural to urban areas will be promoted by better economic opportunities for family income.

There will be a tendency to fill in the open countries which now exist between major metropolitan areas. The suburbanites will be seeking the advantages of living in residential areas without sacrificing reasonable proximity to their metropolitan jobs. The interurban sprawl will create problems for business as well as local governments. Central shopping cities will give way to the shopping center to serve the decentralized population. Because of this population spread, it will be necessary to revise the present attitudes of the local governments since the cost of maintaining these fragmented governments with divergent policies will become very expensive. As cities extend across state lines, the problem will grow. Orderly growth of a large area cannot be accomodated by a multiplicity of policies shaped by competing adjacent communities.[33]

After looking at the environment the businessman will have to survive, it is necessary to observe what type of individual will be the manager of the future. First of all, he must learn to exploit the computer to its fullest extent. Business organizations will continue to use the systems approach even more. Jay W. Forrester advises the business organization to take the approach that if is a system of interelated and interfunctioning parts. He further states that managment has been practiced as a skilled art rather than a science of integrated underlying principles. The industrial systems approach is now evolving into a science which should provide the manager of the future with a set of underlying principles such as engineering enjoys today. Managerial requirements will become more demanding and therefore the new manager will require knowledge of the dynamics of business growth as well as experience, intuition, and judgement.[25]

The information made available to managers has increased to the extent that the decision making process has become more efficient. Another valuable asset of the high speed computer is that it is now a simple process to retrieve information from the data memory file to aid in making decisions.

One of the important prerequisites for the new manager is that he will be able to understand the entire business rather than just isolated segments. He must be able to bring the various segments of the organizations into a homogeneous group which will further the goals of the organization. This manager must be a "super-generalist" concerned with the optimization of overall organization objectives, and as such he must be a problem solver rather than a technically oriented or specialist type person.

In order to fill his role as a systems auditor, designer, and overrider, the manager must understand the language and operation of systems; he must also have some quantitative sophistication and a broader knowledge of the whole system. The total task of the manager decision making will become even more scientific in outlook and method.

The time span between the conception and the implementation of ideas for new and better ways continues to shrink. Each day additional and vital information becomes available. If the present rate of shrinkage continues to the year 2000, will management, that is, the responsible decision maker in business, education, labor, government, and other phases of the world's activity, be able to understand the implications of the new discoveries and make proper use of the new knowledge that will have been accumulated? Will yesterday's technological gap be replaced tomorrow by a management gap? What skills and educational preparations are required for our managers in the year 2000?[46]

Each school of business administration has reacted somewhat differently to the tide of change. Quite different approaches to business education have emerged -- quantitative schools mathematically oriented in their approaches to business problems; behavorialscience schools which stress psychology, sociology, social psychology, cultural anthropology, political science, and human behavior in a business setting; the synthetic school which combines the two approaches mentioned above; and, finally, some schools which have not reacted at all to the changes that have taken place in the world around them. A growing number of educators are acutely concerned with the problem of moving in the direction of an "ideal undergraduate" business curriculum which will prepare the students of today for the business world of tomorrow.

There is already a trend in the direction of exclusive post baccalaureate education in the business field. Abandoning business education in the undergraduate area does not improve the quality of education for business; it is simply shifted to the post baccalaureate level. Business schools cannot survive by using the old curriculum and merely placing it in a new setting. One problem the schools must face is how to educate more and more students to a higher level of competence. There is a growing demand for graduates of the school of business administr tion and a growing tendency for education beyond the bachelor's degree. In some cases, however, the result has been for the advanced curriculum to undermine the value of the bachelor's degree.

In higher education where no outside licensing agency exists there is no unifying force that focuses on the direction the schools should follow. New courses are added while, at the same time, old

courses are dropped for a variety of reasons. There does not, however, appear to be any generally accepted criteria for the adoption of new courses and the deletion of the old. Design of the good criteria for adoption is rudimentary at best.[63]

The difficulty in the design of the business curriculum is that there is no common body of knowledge such as there is in law or medicine. The diversity of occupations in the business world prohibit any specific preparation. Material for the course of study has usually been gathered by people who are specialists, then put into a course of study that is a fragmented program rather than one which takes a general view of the entire spectrum of business.

In order to accomplish the stated objective of educating more students to a higher level, business schools must take the lead in proper administrative practices and "demonstrate the value of effective resource management." The net result would be to improve the productivity of higher education for business.[5]

New approaches to education are programmed instruction, independent study, college credit by examination, and simulation. Simulation is a successful technique for conveying the totality of a real world experience to a student under controlled conditions.[36]

Business education must prepare the student for the problems that he will encounter in the future. The curriculum must also include the needs of the business community as well. The curriculum must be relevant today, as the world of tomorrow is already with us. This is the world of the mass aggregate; it is highly interdependent, highly complex, and possessed of vast internal thrust. Education in traditional rudimentary techniques for policy making management and control of the individual business entity is no longer adequate. More sophisticated and literate leadership is

needed at all levels in business and society.

Redesigning of the graduate programs which are intended to apply to the problems emerging in this complex environment requires that the undergraduate curriculum also be redesigned. Although there is a growing number of students enrolling in the graduate programs of business administration, the majority of the business graduates will end their education at the baccalaureate level.[57] Therefore, it is necessary that the business graduate have the type of education that will prepare him for this new complex business environment. This type of education should preapre the student to grow intellectually and professionally.

The curriculum of business, if it is to apply to the world of today and tomorrow, must include the quantitative dimension. The committee on the undergraduate program in mathematics of the Mathematical Association of America, published in 1964, recommended that the student engaged in the study of management should undertake at least two years, or four semesters, of mathematics with emphasis on the application and not the mathematical proof. This course should include probability, differential and integral calculus, linear algebra, analysis, different and differential equations, and computation. The additional mathematics enables the student to have more mathematical understanding of economics and accounting. The course should also include instruction in the natural sciences as well as the social sciences. The students' facility in both writing and conversation must be improved by written and oral presentations of case analysis. Finally the student must develop his leadership ability. This trait can be improved by students working in teams to solve simulation problems. In addition to simulation, the student must be exposed to actual business practice by visiting and analyzing

the day to day practice of the firm.

Will this type of education prepare the student for the beginning of his career as well as the path he will have to follow on the road to top management? One must look at what the businessman has to say regarding business education. The businessman believes that the student should be educated to develop his analytical ability, balanced judgement, and his capacity to solve problems and make decisions in a well organized manner. He should demonstrate vigor of mind and imagination, an ability to work with and lead others, and an understanding of human behavior as well as social, political, and economic forces. He should possess a character that will adhere to high principles under stress conditions and an ability to keep an open mind. He should show his own initiative by continuing to learn even after his formal education has ended.[22]

It is necessary to look at the graduate curriculum which will be of assistance to the manager of tomorrow. The concept of the integrated graduate curriculum has appeal in the complex environment and the age of rapid change. If it is accepted that business is increasingly more complex and that it is knowledge that aids one in the decision making process, then it appears to follow that the decision making process in the firm will more and more involve the assistance of all relevant experts. Intuitive decisions will be replaced by more scientifically studied decisions made by committees. If these decisions are to be made within the integrated business firm, it appears to be logical to use this approach in the educational institution preparing the student for the business world. This type of education has a terrific impact on the instructor or professor. The instructor must be willing to shift the emphasis from his course

and to optimize the entire curriculum. Another implication is that instructors must become interdisciplined. The instructor must not only keep abreast of his own specialty but must stay current in other fields of business as well.

Integration is further achieved by the use of case studies whereby the student is required to identify the problem or problems. The case must first be examined from each prerequisite course point of view. This will afford the student the opportunity to act as an expert in each of the fields of business. After the case has been examined from the point of view of the experts, it is then necessary to take all the information and combine it into a solution of the case. The shift in emphasis from the course to the curriculum is beneficial to the student because it shifts the emphasis away from the department to the firm as a whole.

Another benefit the student will realize using this type of curriculum is that it will eliminate wasteful duplication of course material. The time saved can be applied toward exposure to new course material which will broaden and deepen the curriculum as a whole. Conflict resolution, for example, emerges as an important problem of business and of most human activity. The model also plays a role in decision making and analysis process. The identification of general tools and joint themes ties the integrated course together and offers the opportunity to transfer ideas from one context to another.[6]

In closing this section, it must be stated that it is not a requirement that all schools of business attack the curriculum from the integrated point of view. It is, however, a logical approach in which the university can provide the student in a limited amount of time the tools with which to go forth into a complex integrated society.

F. FINAL CONCLUSIONS AND SUMMARY. The foregoing sections of this report represent the objective findings of the investigating team. The following observations are subjective in nature and are reported in way of a summary:

1. American colleges and universities have, over the past sixty years, responded in a most commendable manner to the dynamic requirements of management education...especially in the field of business administration. This response is attributable to the fact that realistic objectives have been successfully communicated in a timely and appropriate manner.

2. The development of diverse and highly specialized courses of instruction (accounting, marketing, personnel relations, etc.) are indicative of a keen awareness and a highly responsive attitude relative to the complexities of modern enterprise. Further, the continuing efforts to organize these courses of instruction into formalized curricula at the undergraduate and graduate levels... although still not fully accomplished...represents the dedicated spirit of the American educational system.

3. Significant contributions to management knowledge resulting from academic research have enriched the systematic body of knowledge upon which the profession of management is being built. The manner in which new logical, mathematical, statistical, and computational tools are being applied to the widening range of business problems is indicative of an active involvement on the part of the older organized fields of knowledge, i.e., mathematics, statistics, and the other applied sciences.

4. Managerial decision-making appears to be emerging as the central function of the manager. The increasing emphasis being

given to quantitative and mathematical techniques represents an increasingly successful endeavor to create a genuine science of management.

III. Appendicies

AMERICAN ASSOCIATION OF COLLEGIATE SCHOOLS OF BUSINESS

CONSTITUTION
BYLAWS
STANDARDS FOR ACCREDITATION

1968-1969

Executive Vice President
Arthur M. Weimer
Box 183
Bloomington, Indiana 47401
812 - 337-7850

Executive Secretary
Cyril C. Ling
101 North Skinker Boulevard
Prince Hall
St. Louis, Missouri 63130
314 - 863-0100 Ext. 4835

American Association of Collegiate Schools of Business.

II. PURPOSE. The object of the Association is the promotion and improvement of collegiate education for business.

III. MEMBERSHIP. The Association is composed of institutions offering approved programs of instruction in business subjects. There may be two classes of membership:

(a) Members

(b) Affiliate Members

Institutions may be admitted to membership or affiliate membership on recommendation of the Executive Committee, by a two-thirds vote of the membership represented and qualified to vote at an annual meeting.

IV. DUES. The annual membership dues for members and affiliate members shall be determined by the membership at the time of the annual meeting.

V. VOTING RIGHTS. (1) Each member institution shall have one vote on all matters which come before the Association. (2) Each affiliate member shall have one vote on all matters which come before the Association, except that they shall not be eligible to vote in the election of officers and members of the Executive Committee, changes in the constitution and bylaws, and admission of members to the Association.

VI. MEETINGS. The Association shall hold an annual meeting at such time and place, and of such nature, as the Executive Committee may determine. The Executive Committee shall make such arrangements for meeting with other organizations or groups as it may deem advisable.

VII. OFFICERS. The officers of the Association shall be President, Executive Vice President, Vice President and Secretary-Treasurer. These four, the immediate past President, and nine others elected by the Association, shall constitute the Executive Committee, which shall have power to conduct the affairs of the Association in accordance with the provisions of the Constitution and of any special votes of the Association.

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as Vice President shall succeed to the presidency. The Secretary-Treasurer shall be elected annually and may succeed himself for no more than one additional term. The President, Vice President and Secretary-Treasurer shall hold office until their successors are installed. Three other members, other than the officers, shall be elected each year to the Executive Committee for terms of three years. Vacancies in the Executive Committee shall be filled by temporary appointments made by the President pending the election of permanent successors at the next annual meeting.

VIII. DELEGATES. At meetings of the Association, each institution may have any number of representatives from its active staff, but each institution shall have a single vote.

IX. AUTONOMY OF MEMBERS. No act of the Association shall be held to control the policy or action of any member institution.

X. AMENDMENTS. This constitution may be changed at any annual meeting. No change shall be adopted unless voted by two-thirds of the institutions represented. No motion for an amendment shall be considered unless a copy of such proposed amendment has been filed with the Executive Secretary at least sixty days before the annual meeting and a copy thereof sent forthwith by the Executive Secretary to each member.

Revised May 3, 1967.

I. OFFICERS

a. As provided in the Constitution, the principal officers of the Association are: President, Executive Vice President, Vice President and Secretary-Treasurer. The Executive Vice President shall be appointed by and serve at the pleasure of the Executive Committee. The Vice President and the Secretary-Treasurer shall be elected by the membership at the annual meeting of the Association. The President, Vice President and Secretary-Treasurer shall take office at the conclusion of the annual business meeting and serve for a term of one year or until their successors are duly installed.

b. The duties of the President shall be as follows:

1). He shall preside at the annual meeting of the Association and be chairman of the Executive Committee.

2). He shall act as chief executive officer of the Association and carry out the policies of the Executive Committee.

3). He shall represent or appoint others to represent the Association at all functions to which the Association may be invited and in which it may desire to participate.

4). He shall perform such other duties as customarily pertain to the office of President.

c. The duties of the Executive Vice President shall be as follows:

1). He shall perform the duties prescribed by the Executive Committee.

2). In the discharge of his responsibilities he shall be assisted by an Executive Secretary nominated by him and appointed by the Executive Committee.

dent for any cause, he shall assume and perform the duties of the President. Such service shall not preclude a Vice President from subsequently succeeding to the presidency.

3). He shall arrange the program for the annual meeting of the Association.

4). Prior to the annual meeting at which he is to accede to the presidency, he, together with the Secretary-Treasurer, shall prepare a budget for the forthcoming fiscal year.

e. The duties of the Secretary-Treasurer shall be as follows:

1). He shall present to the membership at the annual meeting a report of the financial operations for the preceding year.

2). He shall submit to the membership, after approval by the Executive Committee, a budget which he and the Vice President have prepared for the forthcoming fiscal year.

3). He shall submit to the Executive Committee at its regular fall, winter and spring meetings and at such other times as requested by the Committee, a statement showing the relation of income and expenditures to the budget for the fiscal year.

4). He shall prepare estimated annual budgets for a period of five years beyond the current year. The estimated budgets shall be presented to the Executive Committee annually for Association planning purposes.

5). He shall arrange for an annual audit to be made of the Association's financial operations by a Certified Public Accountant. A mimeographed copy of this audit shall be distributed to the membership as soon as possible after the audit report is received.

der the special circumstances described in Section 3b, shall be made by a Nominating Committee composed of the following: immediate Past President, two Past Presidents elected by the Past Presidents' Council, and two member deans appointed by the current President. The Nominating Committee shall meet at the time of the annual meeting of the Association and three members shall constitute a quorum. In the event said quorum is not present, the current President shall appoint a sufficient number of member deans to provide a quorum. The most recent Past President on the Committee shall serve as Chairman. In the event there are no Past Presidents present, the current President shall designate a member dean to serve as Chairman.

3. FILLING VACANCIES

a. In case the person serving as President resigns or is unable to serve for any reason, his duties shall be assumed by the Vice President.

b. In case the person elected Vice President resigns or is unable to serve for any reason, his duties shall be assumed by the Secretary-Treasurer until the next annual election; in this event the Nominating Committee shall nominate candidates for the office of President and for the office of Vice President.

c. In case the person elected Secretary-Treasurer resigns or is unable to serve for any reason, his duties shall be assumed by the Vice President.

d. In case two or more of the offices of President, Vice President and Secretary-Treasurer shall be vacated, the Executive Committee is authorized to designate who shall act in these offices until the next annual meeting. Under these conditions any two members of the Executive Committee may call a meeting of the Executive Committee.

e. Vacancies in the Executive Committee shall be filled by temporary appointments made by the President pending the election of permanent successors at the next annual meeting.

f. Vacancies in all other standing and ad hoc committees may be filled by appointment by the President for the unexpired terms.

g. Normally, when any member dean who is serving as an officer or on any committee withdraws for any reason as dean, his service as an officer or committee member shall cease.

4. EXECUTIVE COMMITTEE

a. The Executive Committee of the Association shall be composed of the four principal officers, the most recent past president willing to serve, and nine other members serving in groups of three for three-year terms. Nomination of candidates for the nine elected members of the Executive Committee shall be made by the Nominating Committee as prescribed in Section 2.

b. The Executive Committee shall conduct the business of the Association in the interim between annual meetings and shall execute the policies of the Association as set forth in the Constitution and Bylaws and the decisions made by the membership at the annual meeting.

c. The Executive Committee shall determine the location of the office or offices of the Executive Vice President and the Executive Secretary. It shall provide the office or offices with such equipment and secretarial and other assistance as it deems necessary to handle effectively and appropriately the business of the Association.

d. The Executive Committee shall determine the compensation paid to the Executive Vice President and the Executive Secretary.

e. The Executive Committee shall meet at the call of the President and the presence of seven members shall constitute a quorum.

5. EXECUTIVE SECRETARY

The Executive Secretary shall serve at the pleasure of the Executive Committee. In addition to the duties delegated to him by the Executive Vice President, he shall have the duties specifically prescribed in subsequent sections of the Bylaws. In performance of the specific duties he shall act under the general direction of the Executive Vice President.

6. ANNUAL MEETINGS

a. The Executive Committee is authorized to determine the time and place of the annual meeting of the Association. Announcement of such time and place shall be made to the membership at each annual meeting. The Executive Committee may make such designation for more than one year in advance if such action is deemed advisable in the best interest of the Association.

b. Each member institution shall be entitled to one official voting representative at business meetings of the Association. This official representative shall be the dean, or another person so designated by the member institution. A simple majority of the total membership of the Association shall constitute a quorum.

c. Each member institution shall be entitled to one vote.

d. No member institution may vote by proxy.

e. Robert's Rules of Order, in its most recent revision, shall govern the conduct of business at the annual meeting in the absence of any provision to the contrary in the Constitution and Bylaws of the Association.

7. COMMITTEES

In addition to the Executive Committee there shall be the following standing committees:

a. STANDARDS

1). It shall be the duty of this Committee to recommend to the Executive Committee (1) the membership standards for accreditation and admission of members to the Association, and (2) standards for the continuation of accreditation and membership in the Association. Notice of any proposed change in standards for undergraduate accreditation and standards for masters program accredita-

tion and any interpretations of these standards must be sent to the membership at least sixty days before the annual meeting.

2). The Standards Committee shall also be responsible for determining compliance with standards by the membership and shall supervise the periodic re-evaluation of accredited programs. Possible violations of standards shall be reported to the Executive Committee for review and appropriate action.

3). The Standards Committee shall be composed of a chairman appointed for three years and six other members serving in groups of two for staggered three-year terms. The chairman of the Undergraduate Accreditation Committee and the chairman of the Committee on Accreditation of Masters Programs shall also serve as ex officio members of the Standards Committee.

b. UNDERGRADUATE ACCREDITATION

1). It shall be the duty of the Undergraduate Accreditation Committee to review applications from schools applying for undergraduate accreditation and to make such recommendations as it deems appropriate to the Executive Committee.

2). This Committee shall be responsible for designating representatives of the Association to serve on teams to visit and evaluate applying schools.

3). In any case where a school has applied for undergraduate accreditation and it is either deferred or denied, (a) the dean of the school and the president of the institution must be notified of the decision in writing together with the reasons therefor by the President of the Association as soon as possible after the action has been taken at the regular annual meeting, and (b) any school whose accreditation has been deferred or denied may appeal such decision to the Executive Committee through notice

in writing to the Executive Secretary. In cases of such appeal, the Executive Committee must grant the request and make appropriate arrangements for reexamination of the decision within a reasonable length of time. Expenses incurred in the conduct of the appeal must be borne by the school making the request.

4). The Committee shall cooperate with and seek the cooperation of the several regional accrediting associations and, when requested, designate representatives to serve on joint visitation teams to institutions being visited by a regional association. The Committee shall also provide liaison with all accrediting agencies recognized by the National Commission on Accrediting.

5). It shall conduct its activities in close cooperation with the National Commission on Accrediting and keep the Commission informed regarding all accrediting activities of the Association.

6). The Committee shall be composed of ten members serving five-year terms with the terms of two members expiring each year. The President of the Association shall designate one member serving in the currently expiring year as chairman. The chairman of the Standards Committee shall be an ex officio member of the Committee.

c. ACCREDITATION OF MASTERS PROGRAMS

1). It shall be the duty of this Committee to review applications for accreditation of Masters Programs, to designate Visitation Teams to evaluate applying schools, and to make such recommendations as it deems appropriate to the Executive Committee.

2). The same procedure with reference to appeal as described in Article 7, Section b, Paragraph 3 is applicable here.

3). This Committee shall be composed of a chairman appointed for three years and six other members

serving in groups of two for staggered three-year terms. The chairman of the Standards Committee shall be an ex officio member of the Committee.

d. COOPERATION OF AACSB WITH REGIONAL BUSINESS ADMINISTRATION ASSOCIATIONS

1). It shall be the duty of this Committee to cooperate in supporting the continued development of active regional associations and to serve as a liaison between such regional associations and the AACSB.

2). This Committee shall meet at the time of the annual meeting of the Association and the chairman shall make such report as he deems appropriate at the annual business meeting.

3). The Committee appointed by the President of AACSB shall be composed of a chairman, and one member from each regional association. All members of the Committee shall serve one-year terms, but may be reappointed.

e. PAST PRESIDENTS' COUNCIL

1). The Council, when requested by the President, shall serve as advisor to the President and in this capacity shall:

a). Review the Association's objectives and long-range policies on a continuing basis and make recommendations to the President concerning them.

b). Counsel with the President on such matters as the President refers to it.

2). The Council annually shall elect two of its members to the Association's Nominating Committee.

3). The members of the Council shall include the Presidents of the Association for the previous ten years who are actively serving member institutions as deans.

4). The most recent Past President shall serve as Chairman of the Council.

f. INVESTMENT

1). The Committee shall recommend to the Executive Committee a policy for investment of Association funds and such changes in policy as, from time to time, are deemed advisable.

2). The Committee shall recommend to the Executive Committee such investments of Association funds and changes in investments as it deems prudent.

3). The Committee shall be composed of three members appointed by the President, serving three-year terms with one term expiring each year, plus the Secretary-Treasurer, ex officio. The President annually shall designate one of the four members as chairman for the current fiscal year.

g. AACSB ASSEMBLY

1). It shall be the duty of the Assembly Committee to develop a broad base of representation, communication, and support for higher education for business in order to contribute to the development of administrative and entrepreneurial talent and stimulate economic growth and social progress.

2). The Assembly Committee shall be composed of:

a). Institutions holding membership or affiliate membership in AACSB.

b). Institutions or divisions of institutions of higher education, accredited by regional accrediting bodies, which are invited to membership or apply for membership and are approved.

c). The following institutions and organizations invited to membership, when approved:

i). Foreign institutions of higher education.

ii). Business corporations and firms.

iii). Professional business and trade associations.

iv). Non-profit research and educational organizations.

v). Foundations.

vi). Government agencies and quasi-government agencies.

3). Membership of a fee paying member is continued until terminated at the request of the member or by the Assembly.

h. COUNCIL FOR PROFESSIONAL EDUCATION FOR BUSINESS

1). It shall be the duty of this Committee to promote and facilitate communication concerning professional education for business by:

a). Serving as an information clearing house for affiliated organizations.

b). Representing the professional interests of its affiliated organizations with the Association.

c). Encouraging young people to seek professional careers in business.

d). Acting as a vehicle for the expression of professional and faculty opinion.

2). The CPEB Committee shall be composed of national professional groups identified with education for business.

3). Membership of a fee paying member is continued until terminated at the request of the member or by the Council.

i. ADDITIONAL STANDING COMMITTEES

Additional standing committees may be authorized by the Association upon recommendation of the Executive Committee.

j. AD HOC COMMITTEES

Such committees may be formed at any time when needed to serve special needs as the Executive Committee may deem advisable.

k. SELECTION OF STANDING AND AD HOC COMMITTEES

The members of the standing committees herein listed (except the Executive Committee, the AACSB Assembly, and the Council for Professional Education for Business), those of any additional standing committees which subsequently may be authorized, and of any ad hoc committees which shall be formed, shall be appointed by the President of the Association.

8. MAINTENANCE OF MEMBERSHIP

The responsibility for enforcement of the probation and suspension of membership provisions of the Standards rests with the Executive Committee. In any case of probation or suspension of membership, the President shall notify in writing the dean and the president of the institution involved, stating the reasons therefor. Any suspension of membership must be reported at the annual meeting.

9. DUES, FEES, AND FUNDS

a. The annual membership dues for members and affiliate members and for program listing shall be determined at each annual meeting upon recommendation of the Executive Committee. Notice of a proposal by the Executive Committee to ask approval of any increase in dues must be given to the membership at least sixty days before the date of the opening of the annual meeting.

b The Executive Committee is authorized to charge a processing fee and general fee and to determine the amount of each for schools applying for membership and program accreditation. Expenses of members of visitation teams shall also be assessed to such schools. The processing fee is assessed but once; the general fee and the charge for visitation committee expenses are assessed at each visitation. All fees are assessed through the office of the Executive Secretary.

c. All current funds of the Association shall be deposited promptly by the Executive Secretary in checking accounts in banks which have been approved by the Secretary-

Treasurer. All withdrawals of current funds shall be initiated by vouchers which must be approved by either the Secretary-Treasurer or the Executive Secretary. All checks, except Petty Cash checks as defined below, shall bear the signature of either the Secretary-Treasurer or the Executive Secretary. The Secretary-Treasurer and the Executive Secretary each shall be bonded for a minimum of twice the amount of the Association's current funds as of June 1 each year, or $100,000, whichever is the greater. Before either the Secretary-Treasurer or the Executive Secretary is authorized to sign checks, he shall be bonded. The Executive Secretary shall be authorized to maintain a separate bank account for Petty Cash in an amount to be determined by the Executive Committee from which he may make withdrawals on his own signature. However, all checks issued to reimburse the Petty Cash Fund shall bear the signature of the Secretary-Treasurer. The Executive Secretary shall furnish to the Secretary-Treasurer a monthly statement of vouchers initiated, and checks issued in accordance therewith.

d. The Executive Committee shall have authority to invest or direct the investment of any funds of the Association not needed for current operations. A report of the status of all invested funds shall be made by the Secretary-Treasurer to the membership at the annual meeting of the Association.

10. AMENDMENTS

a. These bylaws may be amended at any annual meeting of the Association by the majority vote of a quorum present and voting.

b. The official representative of any member institution of the Association may propose an amendment or amendments to these bylaws. Notice of any proposed change shall be given to the membership in writing from the office of the Executive Secretary not later than sixty days before the date of the opening of the annual meeting.

c. By unanimous consent of a quorum present at the annual meeting. Section b may be suspended and a proposed change in these bylaws may be considered and acted upon.

d. Amendments to the bylaws may also be made by mail ballot from the office of the Executive Secretary. If two-thirds of the member institutions eligible to vote favor the amendment, it shall be declared adopted.

Revised April 24, 1968.

STANDARDS FOR ACCREDITATION

Membership in the Association is open to schools and colleges whose intellectual climate insures the offering of programs of high academic quality. While certain individual standards for membership listed hereafter are necessarily stated in objective and quantitative terms, their overall purpose is, nevertheless, to provide a qualitative environment within which educational enrichment can take place. Schools seeking admission into the Association will be expected, therefore, to demonstrate more than perfunctory conformity to the quantitative aspects of each of the individual standards. Membership in the Association shall constitute accreditation for professional collegiate education for business.

The statistical data provided by an institution must cover all course offerings in business administration for which degrees in business are awarded, including those of the main campus, branches, off-campus centers, evening classes, extension activities, and of any other organizational elements under the jurisdiction of the institution proper. The dean or chairman representing the institution to the Association will have jurisdiction or participating control over all faculty, programs, and degree offerings of the institution in the field in which he is primarily responsible.

UNDERGRADUATE PROGRAM ACCREDITATION

(1) To be eligible for membership in the American Association of Collegiate Schools of Business a school or college shall be a distinct and independent degree recommending unit responsible directly to the central administrative authority of an institution of higher learning to which other independent degree recommending units are similarly responsible. The total baccalaureate program in business administration will be examined.

In an institution of some complexity it is expected that the recommending of candidates for baccalaureate degrees will rest solely with the school or college of business administration. In this connection each institution is encouraged to distinguish between degree offerings and nondegree service courses and to separate them into discrete programs which are clearly identifiable and that the primary effort of the school or college be devoted to its formal degree objective.

(2) The Executive Committee may recommend affiliate membership when a degree recommending unit does not have jurisdiction or participating control of all degree offerings in business administration, and full independence, within the institution if the Committee is convinced that the applicant school otherwise meets the standards for membership and possesses sufficient autonomy as to curricula, budget, and faculty personnel to insure the development of an adequate program of instruction. A member school may be recommended for affiliate membership by the Executive Committee if institutional circumstances prevent its compliance with the provisions of this standard.

(3) The curricula shall approximate, quantitatively and qualitatively, the standards in effect in recognized collegiate schools of business, due allowance being made for the meeting of regional or other special objectives. A portion of the four years of college work for the undergraduate degree may be taken in some other college, such as a liberal arts or an engineering college, of approved standards. At least forty percent of the total hours required for the bachelors degree must be taken in business and economic subjects; the major portion of the courses in this group shall be in business administration. At least forty percent of the total hours required for the bachelors degree must be taken in subjects other than business and economics provided that economic principles and economic history may be counted in either the business or nonbusiness groups. With respect to the latter, breadth, not specialization, is the objective. Credit for remedial courses of subcollegiate level shall not be considered toward meeting the standards of the Association.

(4) As the foundation for training in business administra-

tion, instruction shall be offered in the fields of economics, accounting, statistics, business law or legal environment of business, business finance, marketing, and management. In general, candidates for the undergraduate degree shall receive basic instruction in each of these fields. Opportunities beyond the basic course shall be available in at least three of the above fields. However, a proliferation of courses which might serve to diminish the effectiveness of the staff in meeting its obligations toward fundamental areas of training is not to be encouraged.

(5) The teaching and administrative staff shall possess the qualifications, experience, professional interests, and scholarly productivity essential for the successful conduct of a collegiate school of business. In judging the teaching staff, consideration is given to the percentage of teaching credit hours taught by those having the doctorate or other terminal degrees appropriate to their teaching field or fields, and to research or professional experience and evidence of scholarly productivity. It is recognized that no one terminal designation is appropriate for all faculty members. The masters degree in economics or business together with the Certified Public Accountant certificate will be considered terminal for the teaching of accounting. The professional degree of LL.B. for business law is also considered terminal. In considering teaching credit hours in business communications and secretarial science, only those who hold doctoral degrees will be considered terminal.

It is expected that at least fifty percent of the teaching credit hours on either the junior-senior level or on an overall basis will be taught by full-time faculty members having terminal degrees as noted above. Only a minor part of the teaching credit hours may, in the professional areas, be taught by part-time teachers. It is further expected that institutions which have evening, off-campus, extension, branch or related activities which are reported separately may be permitted to maintain ratios for these activities of a minimum of one-fourth of the teaching credit hours of these activities by full-time faculty possessing terminal degrees, and the remaining three-fourths of these activities may be offered by either full-time or part-time faculty, of whom one-third must possess terminal degrees.

There shall be at least five faculty members exclusive of

those in general economics of professorial rank (assistant, associate or full professors) giving full time to instruction in business administration: the majority of members of the teaching staff shall give the greater part of their time to instruction and research. The number of teachers and their distribution among ranks and fields shall be adequate to provide effective instruction at all levels offered. No instructor should, at any one time, offer instruction in more than two of the core fields set out in Standard (4).

(6) Members of the instructional staff should not teach courses in excess of twelve credit hours per week. In general, no faculty member shall have preparations in more than three different courses per week.

In judging the instructional load, consideration should be given to the total academic responsibilities borne by each member of the teaching staff. Judgment concerning teaching, research and administrative loads of the instructional staff shall be based upon the average for the entire academic year rather than the experience of a single term only.

(7) The school shall have suitable accommodations for its faculty and students and adequate laboratory, library and other facilities essential to the effective pursuit of its objectives.

(8) After September 1, 1967, no institution may become or remain a member or affiliate member which (a) awards or seeks to award identically designated degrees through the accredited unit and through a unit of the institution, which unit is not accredited by this Association, and (b) does not require the senior year's curriculum in business administration to be taken in residence in the main unit or coordinate degree-granting branch of the institution.

(9) The school shall have been established and in operation for such a period of time as to make it possible to evaluate its character and policies.

(10) No institution subject to undue political influence may become or remain a member or affiliate member.

(11) Any member or affiliate member that does not maintain Association standards shall be placed on annual probation

for a period not to exceed three years, and if not restored to membership or affiliate membership during this period shall be suspended. Suspension may be imposed for cause without a prior period of probation. However, institutions agreeing to adjust to the extension of standards to off-campus centers, evening activities, branches, and extension courses shall submit to the Executive Committee a plan of adjustment extending over a period of time set by the Executive Committee without incurring probation or suspension, provided steady progress is demonstrated.

(12) Each applicant for membership or affiliate membership shall be officially inspected by a committee with a minimum of two members. The Executive Committee may fix such inspection fee as it deems proper to be paid by the applying school.

(13) The Executive Secretary shall each year assemble and distribute to the members and affiliate members such information as the Executive Committee may consider helpful to them. The Association shall make periodic surveys of compliance with standards by the members, by such means and at such intervals as the Executive Committee may decide.

(14) The Association desires to encourage the development and testing of new programs and constructive revision of existing programs. Marked or significant changes shall be reported to the Standards Committee.

This statement of standards is subject to annual review.

Unless otherwise indicated these requirements apply to both members and affiliate members.

Effective April 28, 1956.

Amended April 26, 1963.

Amended May 1, 1964.

Amended April 3, 1965.

(NOTE: Portions of these standards pertaining to branches, off-campus centers, evening classes, extension and correspondence courses were adopted May 1, 1964, subject to approval of the National Commission on Accrediting. These portions were approved by the National Commission on Accrediting on April 3, 1965, and are presently in a condition of transitional accreditation and implementation.)

MASTERS PROGRAM ACCREDITATION

(1) Masters degree programs of member institutions may be listed in the roster of approved masters degree programs if they meet the standards set forth below. It is recognized that various purposes are served by different programs at the masters level and that various degrees are awarded. Listing shall constitute accreditation for professional collegiate education for business at the masters level.

(2) As a general practice, approved masters degree programs in business will be expected to limit their admissions to holders of a baccalaureate degree from accredited institutions. It is expected further that admission will be granted only to students showing high promise of success in postgraduate business study. Various measures of high promise may be used; these include: (a) the candidate's performance on the Admission Test for Graduate Study in Business (ATGSB); (b) the candidate's undergraduate grade averages and the trend of his grades during his undergraduate schooling; (c) the candidate's rank in his collegiate graduating class. Ordinarily such measures of promise will be used in combination and a final judgment arrived at accordingly rather than on the basis of a single criterion. Ordinarily, likewise, the candidate will stand well above average by most of the measures.

(3) In approved programs most masters degree courses will be taught by full-time faculty members.

(4) With few exceptions, masters degree courses will be taught by faculty members with appropriate doctoral degrees.

(5) The school shall have suitable accommodations for its faculty and students, and adequate laboratory, library and other facilities essential to the effective pursuit of its objectives.

(6) The school and its masters program(s) shall have been established and in operation for such a period of time as to make it possible to evaluate its ability to sustain the masters program(s) at acceptably high levels of quality.

(7) It is expected that a school offering both undergraduate and graduate work will maintain both operations on a high-standard basis. Expansion into both areas of responsibility

should not be undertaken until the school has sufficient resources to maintain full standard operations in both.

(8) Students completing degree programs in business must either as undergraduate or as graduate students complete the equivalent of the undergraduate core as set forth in Standard (4) of the Standards for Undergraduate Program Accreditation.

For the M.B.A. degree, it is expected that the program beyond the core shall be broad in nature and aimed at general competence for overall management.

For other masters degrees the limitation on specialization beyond the core will not apply.

(9) For the M.B.A. degree, it is expected that programs will require for most students a minimum of two semesters (or equivalent) of work beyond the core and the baccalaureate degree in classes reserved exclusively for graduate students.

For other masters degrees, it is expected that programs will require for most students entering the programs a minimum of two-thirds of two semesters (or equivalent) of work beyond the said core and the baccalaureate degree in classes reserved exclusively for graduate students.

(10) The Association desires to encourage the development and testing of new programs and constructive revision of existing programs. Marked or significant changes shall be reported to the Standards Committee.

Approved May 5, 1961.
Revised April 26, 1963.
Revised April 30, 1965.

1968–1969

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George P. Baker, *Harvard University*
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Clark E. Myers, *Emory University*

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Cyril C. Ling, *Executive Secretary*

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Term expires 1969:

William C. Flewellen, Jr., *University of Georgia*
Erwin A. Gaumnitz, *University of Wisconsin*
H. H. Mitchell, *Virginia Polytechnic Institute*
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Term expires 1970:

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William H. Baughn, *University of Colorado*
Charles A. Rovetta, *Florida State University*
Stephen W. Vasquez, *Saint Louis University*

Term expires 1971:

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James M. Parrish, *Drexel Institute of Technology*
Gaines M. Rogers, *Mississippi State University*
L. Reed Tripp, *Lehigh University*

MEMBERS

Date in parentheses indicates first year of membership.

UNIVERSITY OF AKRON
College of Businses Administration *(1966)*
Dean Wilbur E. Benson
Akron, Ohio 44304
216—762-2441 281

UNIVERSITY OF ALABAMA
School of Commerce and Business Administration *(1929)*
Dean Paul Garner
University, Alabama 35486
205—348-6040 *

UNIVERSITY OF ALBERTA
Faculty of Business Administration and Commerce *(1963)*
Acting Dean L. Leitch
Edmonton, Alberta
Canada
403—432-4340

UNIVERSITY OF ARIZONA
College of Business and Public Administration *(1948)*
Dean C. William Voris
Tucson, Arizona 85721
602—884-2165 *

ARIZONA STATE UNIVERSITY
College of Business Administration *(1962)*
Dean Glenn D. Overman
Tempe, Arizona 85281
602—961-3331 *

UNIVERSITY OF ARKANSAS
College of Business Administration *(1931)*
Dean John P. Owen
Fayetteville, Arkansas 72701
501—575-4551 *

THE BERNARD M. BARUCH COLLEGE,
THE CITY UNIVERSITY OF NEW YORK
(Formerly THE CITY COLLEGE)
School of Business and Public Administration *(1933)*
Dean Emanuel Saxe
17 Lexington Avenue
New York, New York 10010
212—OR 3-7700 211 or 214

BAYLOR UNIVERSITY
Hankamer School of Business *(1950)*
Dean Emerson O. Henke
Waco, Texas 76706
817—PL 3-4511 209

BOSTON COLLEGE
College of Business Administration *(1956)*
Dean Albert J. Kelley
Chestnut Hill, Massachusetts
02167
617—969-3220 2251

BOSTON UNIVERSITY
College of Business Administration *(1921)*
Dean John S. Fielden
685 Commonwealth Avenue
Boston, Massachusetts 02215
617—353-2668 or 353-2669 *

BOWLING GREEN STATE UNIVERSITY
College of Business Administration *(1954)*
Dean Karl E. Vogt
Bowling Green, Ohio 43402
419—353-8411 2611

BRIGHAM YOUNG UNIVERSITY College of Business *(1963)* Dean Weldon J. Taylor	Provo, Utah 84601 801—FR 4-1211 2567
UNIVERSITY OF CALIFORNIA Schools of Business Administration *(1916)* Dean Richard H. Holton	Berkeley, California 94720 415 642-4124 *
UNIVERSITY OF CALIFORNIA, LOS ANGELES Graduate School of Business Administration *(1939)* Dean George W. Robbins	Los Angeles, California 90024 213—478-9711 2711 *
CALIFORNIA STATE COLLEGE AT FULLERTON School of Business Administration and Economics *(1965)* Dean Jack W. Coleman	Fullerton, California 92631 714—870-2211 *
CALIFORNIA STATE COLLEGE AT LOS ANGELES School of Business and Economics *(1960)* Dean Floyd R. Simpson	Los Angeles California 90032 213—224-3876 *
CARNEGIE-MELLON UNIVERSITY Graduate School of Industrial Administration *(1957)* Dean Richard M. Cyert	Pittsburgh, Pennsylvania 15213 412—621-2600 259
UNIVERSITY OF CHICAGO The Graduate School of Business *(1916)* Acting Dean Walter D. Fackler	Chicago, Illinois 60637 312—MI 3-0800 3621
UNIVERSITY OF CINCINNATI College of Business Administration *(1919)* Dean Kenneth Wilson	Cincinnati, Ohio 45221 513—475-2732 *
THE CITY COLLEGE, THE CITY UNIVERSITY OF NEW YORK (See THE BERNARD M. BARUCH COLLEGE, THE CITY UNIVERSITY OF NEW YORK)	
UNIVERSITY OF COLORADO School of Business *(1938)* Dean William H. Baughn	Boulder, Colorado 80302 303—443-2211 6262
COLUMBIA UNIVERSITY Graduate School of Business *(1916)* Dean Courtney C. Brown	New York, New York 10027 212—280-3103 *
UNIVERSITY OF CONNECTICUT School of Business Administration *(1958)* Dean Robert O. Harvey	Storrs, Connecticut 06268 203—429-3311 401 or 664

CORNELL UNIVERSITY Graduate School of Business and Public Administration *(1950)* Acting Dean David A. Thomas	Ithaca, New York 14850 607—AR 5-5036 *
THE CREIGHTON UNIVERSITY College of Business Administration *(1949)* Dean George W. Hardbeck	Omaha, Nebraska 68131 402—348-2850 *
DARTMOUTH COLLEGE The Amos Tuck School of Business Administration *(1916)* Dean John W. Hennessey, Jr.	Hanover, New Hampshire 03755 603—646-2460 *
UNIVERSITY OF DELAWARE College of Business & Economics *(1966)* Dean Ruben V. Austin	Newark, Delaware 19711 302—737-2551 *
UNIVERSITY OF DENVER College of Business Administration *(1923)* Dean Arthur Mason, Jr.	University Park Denver, Colorado 80210 303—753-3411 *
DePAUL UNIVERSITY College of Commerce *(1957)* Dean James A. Hart	Chicago, Illinois 60604 312—WE 9-3525 300
UNIVERSITY OF DETROIT College of Business and Administration *(1949)* Dean B. F. Landuyt	McNichols Road at Livernois Detroit, Michigan 48221 313—342-1000 221 *
DRAKE UNIVERSITY College of Business Administration *(1949)* Dean Richard G. Peebler	25th and University Des Moines, Iowa 50311 515—271-3142 *
DREXEL INSTITUTE OF TECHNOLOGY College of Business Administration *(1967)* Dean James M. Parrish	Philadelphia, Pennsylvania 19104 215—EV 7-2400 2220
DUQUESNE UNIVERSITY School of Business Administration *(1961)* Dean James L. Hayes	Pittsburgh, Pennsylvania 15219 412—471-4600 287
EAST CAROLINA UNIVERSITY School of Business *(1967)* Dean James H. Bearden	Greenville, North Carolina 27834 919—758-3426 244
EMORY UNIVERSITY School of Business Administration *(1949)* Dean Clark E. Myers	Atlanta, Georgia 30322 404—377-2411 7651
UNIVERSITY OF FLORIDA College of Business Administration *(1929)* Acting Dean John B. McFerrin	Gainesville, Florida 32601 904—392-0165 *

FLORIDA STATE UNIVERSITY School of Business *(1962)* Dean Charles A. Rovetta	Tallahassee, Florida 32306 904—599-3520 *
FORDHAM UNIVERSITY College of Business Administration *(1939)* Dean James H. MacNeill	Bronx, New York 10458 212—933-2233 373
FRESNO STATE COLLEGE School of Business *(1959)* Dean McKee Fisk	Fresno, California 93726 209—487-2482 *
UNIVERSITY OF GEORGIA College of Business Administration *(1926)* Dean William C. Flewellen, Jr.	Athens, Georgia 30601 404—542-1613 *
GEORGIA STATE COLLEGE School of Business Administration *(1960)* Dean George E. Manners	33 Gilmer Street, SE. Atlanta, Georgia 30303 404—577-2400 229 or 230
HARVARD UNIVERSITY Graduate School of Business Administration *(1916)* Dean George P. Baker	Soldiers Field Boston, Massachusetts 02163 617—KI 7-9800 201 2500 Campus Road
UNIVERSITY OF HAWAII College of Business Administration *(1967)* Dean Edward M. Barnet	Honolulu, Hawaii 96822 808—944-8377 or 944-8531 * 1000 Fulton Avenue
HOFSTRA UNIVERSITY School of Business *(1968)* Dean Harold L. Wattel	Hempstead, New York 11550 516—560-3243 or 560-3244 *
UNIVERSITY OF HOUSTON College of Business Administration *(1964)* Dean T. R. Brannen	3801 Cullen Boulevard Houston, Texas 77004 713—748-6600 1111
UNIVERSITY OF ILLINOIS College of Commerce and Business Administration *(1924)* Dean Joseph W. McGuire	Urbana, Illinois 61801 217—333-2747 *
INDIANA UNIVERSITY The School of Business *(1921)* Dean W. George Pinnell	Bloomington, Indiana 47401 812—337-8489 *
UNIVERSITY OF IOWA College of Business Administration *(1923)* Dean B. L. Barnes	Iowa City, Iowa 52240 319—353-5823 *
UNIVERSITY OF KANSAS School of Business *(1925)* Dean Clifford D. Clark	Lawrence, Kansas 66044 913—UN 4-3796 *

KENT STATE UNIVERSITY College of Business Administration *(1964)* Dean Bernard Hall	Kent, Ohio 44240 216—672-2772 *
UNIVERSITY OF KENTUCKY College of Business and Economics *(1926)* Dean Charles F. Haywood	Lexington, Kentucky 40506 606—258-9000 2229
LEHIGH UNIVERSITY College of Business and Economics *(1938)* Dean L. Reed Tripp	Bethlehem, Pennsylvania 18015 215—867-5071 269
LOUISIANA POLYTECHNIC INSTITUTE School of Business Administration *(1955)* Dean Burton R. Risinger	Ruston, Louisiana 71270 318—257-4526 *
LOUISIANA STATE UNIVERSITY College of Business Administration *(1931)* Dean William D. Ross	Baton Rouge, Louisiana 70803 504—388-3211 *
LOYOLA UNIVERSITY School of Business Administration *(1955)* Dean F. Virgil Boyd	Lewis Towers 820 N. Michigan Avenue Chicago, Illinois 60611 312—WH 4-0800
LOYOLA UNIVERSITY College of Business Administration *(1950)* Acting Dean G. Ralph Smith	New Orleans, Louisiana 70118 504—866-5471 289
MARQUETTE UNIVERSITY The Robert A. Johnston College of Business Administration *(1928)* Dean T. R. Martin	Milwaukee, Wisconsin 53233 414—344-1000 325
UNIVERSITY OF MARYLAND College of Business and Public Administration *(1940)* Dean Donald W. O'Connell	College Park, Maryland 20742 301—454-2301 *
UNIVERSITY OF MASSACHUSETTS School of Business Administration *(1958)* Dean Wendell Smith	Amherst, Massachusetts 01002 413—545-2484 or 545-2604 *
MASSACHUSETTS INSTITUTE OF TECHNOLOGY Alfred P. Sloan School of Management *(1957)* Dean William F. Pounds	Cambridge, Massachusetts 02139 617—864-6900
UNIVERSITY OF MIAMI School of Business Administration *(1957)* Acting Dean Vergil A. Shipley	Coral Gables, Florida 33124 305—284-4641 *
MIAMI UNIVERSITY School of Business Administration *(1932)* Dean Bill R. Moeckel	Oxford, Ohio 45056 513—529-3631 *

THE UNIVERSITY OF MICHIGAN
Graduate School of Business Administration *(1919)*
Dean Floyd A. Bond

Ann Arbor, Michigan 48104
313—764-1361 *

MICHIGAN STATE UNIVERSITY
College of Business and The Graduate School of Business Administration *(1953)*
Dean Alfred L. Seelye

East Lansing, Michigan 48823
517—355-8377 *

UNIVERSITY OF MINNESOTA
School of Business Administration *(1920)*
Dean Paul V. Grambsch

Minneapolis, Minnesota 55455
612—373-4195 *

UNIVERSITY OF MISSISSIPPI
School of Business and Government *(1944)*
Acting Dean Ben B. McNew

University, Mississippi 38677
601—232-8053 *

MISSISSIPPI STATE UNIVERSITY
College of Business and Industry *(1960)*
Dean Gaines M. Rogers

State College, Mississippi 39762
601—323-4321 211

UNIVERSITY OF MISSOURI—COLUMBIA
School of Business and Public Administration *(1926)*
Dean Pinkney C. Walker

Columbia, Missouri 65201
314—449-9251 223

UNIVERSITY OF MONTANA
School of Business Administration *(1949)*
Acting Dean Donald J. Emblen

Missoula, Montana 59801
406—243-4831 *

UNIVERSITY OF NEBRASKA
College of Business Administration *(1916)*
Dean Charles S. Miller

Lincoln, Nebraska 68508
402—472-2311 *

THE UNIVERSITY OF NEBRASKA AT OMAHA
(Formerly THE UNIVERSITY OF OMAHA)
College of Business Administration *(1965)*
Dean John W. Lucas

Omaha, Nebraska 68101
402—553-4700 303

UNIVERSITY OF NEVADA
College of Business Administration *(1961)*
Dean Robert C. Weems, Jr.

Reno, Nevada 89507
702—784-6888 *

STATE UNIVERSITY OF NEW YORK AT BUFFALO
School of Business Administration *(1930)*
Dean Richard G. Brandenburg
(effective 9/1/68)

Crosby Hall, Library Circle
Buffalo, New York 14214
716—831-3533 *

NEW YORK UNIVERSITY Schools of Business *(1916):* Graduate School of Business Administration Dean Joseph H. Taggart	100 Trinity Place New York, New York 10006 212—732-5820 *
School of Commerce Dean Abraham L. Gitlow	Washington Square New York, New York 10003 212—598-2235 *
UNIVERSITY OF NORTH CAROLINA Graduate School of Business Administration *(1923)* Dean Maurice W. Lee	Chapel Hill, North Carolina 27514 919—933-2368 *
NORTH TEXAS STATE UNIVERSITY School of Business Administration *(1961)* Dean O. J. Curry	Denton, Texas 76203 817—387-4511 327 *
NORTHEASTERN UNIVERSITY College of Business Administration *(1962)* Dean James S. Hekimian	Boston, Massachusetts 02115 617—437-3230 *
NORTHWESTERN UNIVERSITY School of Business *(1916)* Dean John A. Barr	Wieboldt Hall 339 East Chicago Avenue Chicago, Illinois 60611 312—649-8388 *
UNIVERSITY OF NOTRE DAME College of Business Administration *(1962)* Dean Thomas T. Murphy	Notre Dame, Indiana 46556 219—284-7236 *
OHIO STATE UNIVERSITY College of Administrative Science *(1916)* Dean James R. McCoy	Columbus, Ohio 43210 614—293-2666 *
OHIO UNIVERSITY College of Business Administration *(1950)* Dean Harry F. Evarts	Athens, Ohio 45701 614—594-5446 *
UNIVERSITY OF OKLAHOMA College of Business Administration *(1926)* Dean Horace B. Brown, Jr.	Norman, Oklahoma 73069 405—325-3612 *
OKLAHOMA STATE UNIVERSITY College of Business *(1958)* Dean Richard W. Poole	Stillwater, Oklahoma 74074 405—FR 2-6211 258
THE UNIVERSITY OF OMAHA (See THE UNIVERSITY OF NEBRASKA AT OMAHA)	
UNIVERSITY OF OREGON College of Business Administration *(1923)* Dean Richard W. Lindholm	Eugene, Oregon 97403 503—342-1411 300
OREGON STATE UNIVERSITY School of Business and Technology *(1960)* Dean Earl Goddard	Corvallis, Oregon 97331 503—754-2551 *

UNIVERSITY OF PENNSYLVANIA Wharton School of Finance and Commerce *(1916)* Dean Willis J. Winn	3620 Locust Walk Philadelphia, Pennsylvania 19104 215—594-7601 *
THE PENNSYLVANIA STATE UNIVERSITY College of Business Administration *(1957)* Dean Ossian MacKenzie	University Park, Pennsylvania 16802 814—865-3473 *
UNIVERSITY OF PITTSBURGH Graduate School of Business *(1916)* Office of the Dean	Pittsburgh, Pennsylvania 15213 412—621-3500 559
PURDUE UNIVERSITY Herman C. Krannert Graduate School of Industrial Administration *(1967)* Dean Emanuel T. Weiler	Lafayette, Indiana 47907 317—92-2585
UNIVERSITY OF RICHMOND School of Business Administration *(1965)* Dean W. David Robbins	University of Richmond, Virginia 23173 703—288-1921 50
THE UNIVERSITY OF ROCHESTER College of Business Administration *(1964)* Dean William H. Meckling	Rochester, New York 14627 716—275-4201 *
ROOSEVELT UNIVERSITY College of Business Administration *(1964)* Dean Richard R. Weeks	430 South Michigan Avenue Chicago, Illinois 60605 312—WA 2-3580 328
RUTGERS—THE STATE UNIVERSITY OF NEW JERSEY Graduate School of Business Administration *(1941)* Dean Horace J. De Podwin	Newark, New Jersey 07102 201—621-1766
SACRAMENTO STATE COLLEGE School of Business Administration *(1963)* Dean Vergil V. Miller	6000 Jay Street Sacramento, California 95819 916—454-6339 *
ST. JOHN'S UNIVERSITY College of Business Administration *(1968)* Dean John J. Clark	Utopia and Grand Central Parkways Jamaica, New York 11432 212—JA 6-3700 212
SAINT LOUIS UNIVERSITY School of Commerce and Finance *(1948)* Dean Stephen W. Vasquez	St. Louis, Missouri 63108 314—JE 5-3300 431
SAN DIEGO STATE COLLEGE School of Business Administration *(1959)* Acting Dean Maurice L. Crawford	San Diego, California 92115 714—286-5301 *

UNIVERSITY OF SAN FRANCISCO College of Business Administration *(1953)* Dean William J. Regan	San Francisco, California 94117 415—752-1000 272
SAN FRANCISCO STATE COLLEGE School of Business *(1963)* Dean William Niven	1600 Holloway Avenue San Francisco, California 94127 415—469-1277 *
SAN JOSE STATE COLLEGE School of Business *(1967)* Dean Milburn D. Wright	San Jose California 95114 408—294-6414 2214 or 2215
UNIVERSITY OF SANTA CLARA School of Business and Administration *(1953)* Dean Charles J. Dirksen	Santa Clara, California 95053 408—246-3200
SEATTLE UNIVERSITY School of Business *(1965)* Dean James W. Robertson	Seattle, Washington 98122 206—EA 3-9400 265
UNIVERSITY OF SOUTH CAROLINA College of Business Administration *(1962)* Dean James F. Kane	Columbia, South Carolina 29202 803—777-3176 *
UNIVERSITY OF SOUTH DAKOTA School of Business *(1949)* Dean R. F. Patterson (until 9/1/68)	Vermillion, South Dakota 57069 605—677-5483 *
UNIVERSITY OF SOUTHERN CALIFORNIA School of Business Administration *(1922)* Dean Robert R. Dockson	University Park Los Angeles, California 90007 213—746-2431 *
SOUTHERN ILLINOIS UNIVERSITY School of Business *(1962)* Dean Robert S. Hancock	Carbondale, Illinois 62901 618—453-3328 *
SOUTHERN METHODIST UNIVERSITY School of Business Administration *(1925)* Dean C. Jackson Grayson, Jr.	Dallas, Texas 75222 214—EM 3-5611 496
STANFORD UNIVERSITY Graduate School of Business *(1926)* Acting Dean Samuel A. Pond	Stanford, California 94305 415—321-2300 2166
SYRACUSE UNIVERSITY College of Business Administration *(1920)* Dean Robert G. Cox	116 College Place Syracuse, New York 13210 315—GR 6-5541 3751
TEMPLE UNIVERSITY School of Business Administration *(1934)* Dean Seymour L. Wolfbein	Philadelphia, Pennsylvania 19122 215—787-7676 *
UNIVERSITY OF TENNESSEE College of Business Administration *(1941)* Dean Arthur E. Warner	Knoxville, Tennessee 37916 615—974-2341 *

UNIVERSITY OF TEXAS College of Business Administration *(1916)* Dean George Kozmetsky	Austin, Texas 78712 512—GR 1-1447 *
TEXAS CHRISTIAN UNIVERSITY M. J. Neeley School of Business *(1963)* Dean Ike H. Harrison	Fort Worth, Texas 76129 817—WA 6-2461 280
TEXAS SOUTHERN UNIVERSITY School of Business *(1967)* Dean Milton Wilson	Houston, Texas 77004 713—748-6939 * or 713—JA 8-0611 325
TEXAS TECHNOLOGICAL COLLEGE School of Business Administration *(1958)* Dean George G. Heather	Lubbock, Texas 79409 806—742-2136 *
UNIVERSITY OF TOLEDO College of Business Administration *(1955)* Dean John L. Mason	Toledo, Ohio 43606 419—531-5711
TULANE UNIVERSITY Graduate School of Business Administration *(1916)* Dean Peter A. Firmin	New Orleans, Louisiana 70118 504—865-7711 226
UNIVERSITY OF TULSA College of Business Administration *(1949)* Dean M. M. Hargrove	Tulsa, Oklahoma 74104 918—WE 9-6351
UNIVERSITY OF UTAH College of Business *(1936)* Dean Clyde N. Randall	Salt Lake City, Utah 84112 801—322-7633 *
UNIVERSITY OF VIRGINIA McIntire School of Commerce *(1925)* Dean Frank S. Kaulback, Jr.	Charlottesville, Virginia 22901 703—295-2166 3176
VIRGINIA POLYTECHNIC INSTITUTE College of Business *(1966)* Dean H. H. Mitchell	Blacksburg, Virginia 24061 703—552-6601 *
WAKE FOREST UNIVERSITY Charles H. Babcock School of Business Administration *(1954)* Acting Dean Jeanne Owen	Winston-Salem, North Carolina 27109 919—725-9711 221
UNIVERSITY OF WASHINGTON Graduate School and School of Business Administration *(1921)* Dean Kermit O. Hanson	Seattle, Washington 98105 206—543-4750 *
WASHINGTON AND LEE UNIVERSITY School of Commerce and Administration *(1927)* Dean L. W. Adams	Lexington, Virginia 24450 703—463-2181 262

WASHINGTON STATE UNIVERSITY College of Economics and Business *(1950)* Dean Eugene Clark	Pullman, Washington 99163 509—335-3507
WASHINGTON UNIVERSITY School of Business and Public Administration *(1921)* Dean Karl A. Hill	St. Louis, Missouri 63130 314—VO 3-0100 4841
WEST VIRGINIA UNIVERSITY College of Commerce *(1954)* Acting Dean Raymond M. Haas	Morgantown, West Virginia 26506 304—293-3121 *
WESTERN RESERVE UNIVERSITY (Pending accreditation as CASE WESTERN RESERVE UNIVERSITY) School of Management *(1958)* Dean Robert R. White	Cleveland, Ohio 44106 216—368-2030 *
WICHITA STATE UNIVERSITY College of Business Administration *(1968)* Dean F. D. Jabara	Wichita Kansas 67208 316—MU 3-7561 331
UNIVERSITY OF WISCONSIN Graduate School of Business *(1916)* Dean Erwin A. Gaumnitz	Madison, Wisconsin 53706 608—262-1553 *
UNIVERSITY OF WYOMING College of Commerce and Industry *(1956)* Dean M. C. Mundell	Laramie, Wyoming 82070 307—766-4194 *

* Centrex or other direct telephone line.

University of Akron, College of Business Administration
University of Alabama, School of Commerce and Business Administration
University of Alberta, Faculty of Business Administration and Commerce
University of Arizona, College of Business and Public Administration
Arizona State University, College of Business Administration
University of Arkansas, College of Business Administration

The Bernard M. Baruch College, The City University of New York, School of Business and Public Administration
Baylor University, Hankamer School of Business
Boston College, College of Business Administration
Boston University, College of Business Administration
Bowling Green State University, College of Business Administration
Brigham Young University, College of Business

University of California at Berkeley, School of Business Administration
California State College at Fullerton, School of Business Administration and Economics
California State College at Los Angeles, School of Business and Economics
University of Cincinnati, College of Business Administration
University of Colorado, School of Business
University of Connecticut, School of Business Administration
The Creighton University, College of Business Administration

University of Delaware, College of Business & Economics
University of Denver, College of Business Administration
DePaul University, College of Commerce
University of Detroit, College of Business and Administration
Drake University, College of Business Administration
Drexel Institute of Technology, College of Business Administration
Duquesne University, School of Business Administration

East Carolina University, School of Business
Emory University, School of Business Administration

University of Florida, College of Business Administration
Florida State University, School of Business
Fordham University, College of Business Administration
Fresno State College, School of Business

University of Georgia, College of Business Administration
Georgia State College, School of Business Administration .

University of Hawaii, College of Business Administration
Hofstra University, School of Business
University of Houston, College of Business Administration

University of Illinois, College of Commerce and Business Administration
Indiana University, The School of Business
University of Iowa, College of Business Administration

University of Kansas, School of Business
Kent State University, College of Business Administration
University of Kentucky, College of Business & Economics

Lehigh University, College of Business and Economics
Louisiana Polytechnic Institute, School of Business Administration
Louisiana State University, College of Business Administration
Loyola University (Chicago, Illinois), School of Business Administration
Loyola University (New Orleans, Louisiana), College of Business Administration

Marquette University, The Robert A. Johnston College of Business Administration
University of Maryland, College of Business and Public Administration
University of Massachusetts, School of Business Administration
Massachusetts Institute of Technology, Alfred P. Sloan School of Management
University of Miami, School of Business Administration
Miami University, School of Business Administration
The University of Michigan, School of Business Administration
Michigan State University, College of Business
University of Minnesota, School of Business Administration
University of Mississippi, School of Business and Government
Mississippi State University, College of Business and Industry
University of Missouri—Columbia, School of Business and Public Administration
University of Montana, School of Business Administration

University of Nebraska, College of Business Administration
The University of Nebraska at Omaha, College of Business Administration
University of Nevada, College of Business Administration
State University of New York at Buffalo, School of Business Administration
New York University, School of Commerce
University of North Carolina, School of Business Administration
North Texas State University, School of Business Administration
Northeastern University, College of Business Administration
Northwestern University, School of Business
University of Notre Dame, College of Business Administration

Ohio State University, College of Administrative Science
Ohio University, College of Business Administration
University of Oklahoma, College of Business Administration
Oklahoma State University, College of Business
University of Oregon, Undergraduate School of Business
Oregon State University, School of Business and Technology

University of Pennsylvania, Wharton School of Finance and Commerce
The Pennsylvania State University, College of Business Administration

University of Richmond, School of Business Administration
The University of Rochester, College of Business Administration
Roosevelt University, College of Business Administration

Sacramento State College, School of Business Administration
St. John's University, College of Business Administration

Saint Louis University, School of Commerce and Finance
San Diego State College, School of Business Administration
University of San Francisco, College of Business Administration
San Francisco State College, School of Business
San Jose State College, School of Business
University of Santa Clara, School of Business and Administration
Seattle University, School of Business
University of South Carolina, College of Business Administration
University of South Dakota, School of Business
University of Southern California, School of Business
Southern Illinois University, School of Business
Southern Methodist University, School of Business Administration
Syracuse University, College of Business Administration

Temple University, School of Business Administration
University of Tennessee, College of Business Administration
University of Texas, College of Business Administration
Texas Christian University, M. J. Neeley School of Business
Texas Southern University, School of Business
Texas Technological College, School of Business Administration
University of Toledo, College of Business Administration
University of Tulsa, College of Business Administration

University of Utah, College of Business

University of Virginia, McIntire School of Commerce
Virginia Polytechnic Institute, College of Business

Wake Forest University, Charles H. Babcock School of Business Administration
University of Washington, School of Business Administration
Washington and Lee University, School of Commerce and Administration
Washington State University, College of Economics and Business
Washington University, School of Business and Public Administration
West Virginia University, College of Commerce
Western Reserve University (Pending accreditation as Case Western Reserve University), School of Management
Wichita State University, College of Business Administration
University of Wisconsin, School of Business
University of Wyoming, College of Commerce and Industry

MASTERS PROGRAM ACCREDITATION

University of Alabama, School of Commerce and Business Administration
University of Arizona, College of Business and Public Administration
Arizona State University, College of Business Administration
University of Arkansas, College of Business Administration

Boston University, College of Business Administration
Bowling Green State University, College of Business Administration

University of California at Berkeley, Graduate School of Business Administration
University of California, Los Angeles, Graduate School of Business Administration
California State College at Los Angeles, School of Business and Economics
Carnegie-Mellon University, Graduate School of Industrial Administration
University of Chicago, The Graduate School of Business
University of Cincinnati, College of Business Administration
University of Colorado, Graduate School of Business Administration
Columbia University, Graduate School of Business
Cornell University, Graduate School of Business and Public Administration

Dartmouth College, The Amos Tuck School of Business Administration
University of Denver, College of Business Administration
DePaul University, College of Commerce
University of Detroit, Graduate School
Duquesne University, Graduate School of Business Administration

Emory University, Graduate School of Business Administration

University of Florida, College of Business Administration
Florida State University, School of Business

University of Georgia, Graduate School of Business Administration
Georgia State College, School of Business Administration

Harvard University, Graduate School of Business Administration
University of Houston, College of Business Administration

University of Illinois, Graduate School of Business Administration
Indiana University, The Graduate School of Business
University of Iowa, College of Business Administration

Kent State University, College of Business Administration
University of Kentucky, College of Business & Economics

Lehigh University, College of Business and Economics
Louisiana State University, College of Business Administration

Marquette University, The Robert A. Johnston College of Business Administration
University of Maryland, College of Business and Public Administration
University of Massachusetts, School of Business Administration
Massachusetts Institute of Technology, Alfred P. Sloan School of Management

University of Miami, School of Business Administration
Miami University, School of Business Administration
The University of Michigan, Graduate School of Business Administration
Michigan State University, The Graduate School of Business Administration
University of Minnesota, Graduate School of Business Administration
Mississippi State University, College of Business and Industry
University of Missouri -- Columbia, School of Business and Public Administration

University of Nebraska, College of Business Administration
New York University, Graduate School of Business Administration
University of North Carolina, Graduate School of Business Administration
North Texas State University, School of Business Administration
Northwestern University, School of Business

Ohio State University, College of Administrative Science
University of Oklahoma, College of Business Administration
Oklahoma State University, College of Business
University of Oregon, Graduate School of Management and Business

University of Pennsylvania, Wharton School of Finance and Commerce
The Pennsylvania State University, College of Business Administration
University of Pittsburgh, Graduate School of Business
Purdue University, Herman C. Krannert Graduate School of Industrial Administration

The University of Rochester, College of Business Administration
Rutgers—The State University of New Jersey, Graduate School of Business Administration

San Diego State College, School of Business Administration
University of Santa Clara, Graduate School of Business and Administration
University of South Carolina, College of Business Administration
University of South Dakota, School of Business
University of Southern California, Graduate School of Business Administration
Stanford University, Graduate School of Business
Syracuse University, College of Business Administration

University of Texas, Graduate School of Business
Texas Christian University, M. J. Neeley School of Business
University of Toledo, College of Business Administration
Tulane University, Graduate School of Business Administration

University of Utah, College of Business

University of Washington, Graduate School of Business Administration
Washington State University, College of Economics and Business
Washington University, The Graduate School of Business Administration
West Virginia University, College of Commerce
Western Reserve University (Pending accreditation as Case Western Reserve University), School of Management
University of Wisconsin, Graduate School of Business

1920 [illegible]
University of

1925 [illegible]
University of

1930 [illegible]
University of

1934 [illegible]
Ohio State University

1935 Roswell C. McCrea
Columbia University

1936 [illegible]
University of Nebraska

1937 [illegible]
Harvard University

1938 George W. Dowrie*
Stanford University

1939 [illegible]
New York University

1940 [illegible]
North Carolina University

1941 [illegible]
State University of Iowa

1942 [illegible]
Indiana University

1943 [illegible]
University of Buffalo

1944 Russell A. [illegible]
University of [illegible]

1945 [illegible]
University of California

1946 [illegible]
University of [illegible]

1947 [illegible]
Ohio State University

1948 Charles L. Thompson*
University of Illinois

1949 Robert P. [illegible]
University of Colorado

1950 [illegible]
University of [illegible]

1951 [illegible]
Purdue University

1952 Charles C. [illegible]
University of Illinois

1953 [illegible]
University of California

1950 [illegible]
University of [illegible]

1951 C. C. [illegible]
University of [illegible]

1952 [illegible]
Miami University

1953 [illegible]
University of Minnesota

1954 [illegible]
Indiana University

1955 Thomas L. Norton
City College of New York

1956 [illegible]
University of [illegible]

1957 [illegible]
Brown University

1958 [illegible]
University of Illinois

1959 [illegible]
State University of Iowa

1960 [illegible]
Northwestern University

1961 [illegible]
University of North Carolina

1962 [illegible]
Northwestern University

1963 [illegible]
University of Washington

1964 [illegible]
University of South Dakota

1965 [illegible]
University of Alabama

1966 Charles L. [illegible]
University of Santa Clara

1967 [illegible]
University of [illegible]

1968 [illegible]
University of [illegible]

* Deceased

APPENDIX (3)

Undergraduate Degrees in

Business Administration

This appendix consists of an excerpt from Lovejoy's college guide for informational purposes and two (2) sections. Each section consists of four (4) pages with ten (10) colleges or universities presented. It can be seen that the colleges and universities noted in the matrices are not all inclusive. However, an attempt was made to select those which would provide for a representative country wide sample. Some major institutions presented their catalogs in such a manner that it was impossible to incorporate their program into our matrix and still maintain any semblance of comparison. Furthermore, the various courses offered in many of the institutions used were of necessity grouped in general areas. In selecting the group in which to include each specific course, the researchers used catalog course descriptions and made no attempt to consider variations in classroom presentation vs the catalog description. Because of the direction of our study, selections were restricted to general business cores of study wherever possible.

KEY:

H denotes semester hours
QH denotes quarter hours
* denotes areas of selection or major study in which a stated number of hours are required as electives

Business Administration

(Members of American Association of Collegiate Schools of Business)

ALABAMA
Alabama, U. of

ARIZONA
Arizona State U. (Tempe)
Arizona, U. of

ARKANSAS
Arkansas, U. of

CALIFORNIA
California State Coll. at Fullerton
California State Coll. at Los Angeles
California, U. of (Berkeley)
California, U. of (Los Angeles)
Fresno State Coll.
Sacramento State Coll.
San Diego State Coll.
San Francisco State Coll.
San Francisco, U. of
Santa Clara, U. of
Southern California, U. of
Stanford

COLORADO
Colorado, U. of
Denver, U. of

CONNECTICUT
Connecticut, U. of

DELAWARE
Delaware, U. of

FLORIDA
Florida State U.
Florida, U. of
Miami, U. of

GEORGIA
Emory

Georgia State Coll.
Georgia, U. of

ILLINOIS
Chicago, U. of
De Paul
Illinois, U. of
Loyola
Northwestern
Roosevelt U.
Southern Illinois U.

INDIANA
Indiana U.
Notre Dame, U. of

IOWA
Drake
Iowa, U. of

KANSAS
Kansas, U. of

KENTUCKY
Kentucky, U. of

LOUISIANA
Louisiana Poly. Inst.
Louisiana State U.
Loyola
Tulane

MARYLAND
Maryland, U. of

MASSACHUSETTS
Boston Coll.
Boston U.
Harvard
Massachusetts Inst. of Tech.
Massachusetts, U. of
Northeastern U.

MICHIGAN
Detroit, U. of
Michigan State U.
Michigan, U. of

MINNESOTA
Minnesota, U. of

MISSISSIPPI
Mississippi State U.
Mississippi, U. of

MISSOURI
Missouri, U. of
St. Louis U.
Washington

MONTANA
Montana, U. of

NEBRASKA
Creighton
Nebraska, U. of
Omaha, Municipal U. of

NEVADA
Nevada, U. of

NEW HAMPSHIRE
Dartmouth

NEW JERSEY
Rutgers

NEW YORK
Buffalo, State U. at
City Coll.
Columbia
Cornell
Fordham
New York U. (Grad. Sch. Bus. Ad.)
New York U. (Sch. Commerce)
Rochester, U. of
Syracuse

NORTH CAROLINA
East Carolina U.
North Carolina, U. of
Wake Forest

OHIO
Akron, U. of
Bowling Green State U.
Cincinnati, U. of
Kent State
Miami U.
Ohio State U.
Ohio U.
Toledo, U. of
Western Reserve

OKLAHOMA
Oklahoma State U.
Oklahoma, U. of
Tulsa, U. of

OREGON
Oregon State U.
Oregon, U. of

PENNSYLVANIA
Carnegie-Mellon Univ.
Duquesne U.
Lehigh
Pennsylvania State U.
Pennsylvania, U. of
Pittsburgh, U. of
Temple

SOUTH CAROLINA
South Carolina, U. of

SOUTH DAKOTA
South Dakota, U. of

TENNESSEE
Tennessee, U. of

TEXAS
Baylor
Houston, U. of
North Texas State U.
Southern Methodist
Texas Christian U.
Texas Tech. Coll.
Texas, U. of

UTAH
Brigham Young U.
Utah, U. of

VIRGINIA
Richmond, U. of
Virginia Polytechnic Inst.
Virginia, U. of
Washington and Lee

WASHINGTON
Seattle U.
Washington State U.
Washington, U. of

WEST VIRGINIA
West Virginia U.

WISCONSIN
Marquette
Wisconsin, U. of

WYOMING
Wyoming, U. of

SECTION (1)

Course Area or Title / University or College	Pace College Undergraduate	Bowling Green State University Undergraduate	Pennsylvania State Undergraduate	Michigan University Undergraduate	Kississippi State University Undergraduate	Fordham University Undergraduate	Valparaiso University Undergraduate	Michigan State University Undergraduate	Arizona State University Undergraduate	University of Denver
Accounting	8 H	9 QH	6 H	6-7 H	9 H	6 H	6 H	10 QH	6 H	10 QH
Business or Commercial Law	6 H	4 QH	3 H	3 H	3 H	3 H		8 QH	3 H	5 QH
Business and Government	2 H	8 QH		6 H	3 H	6 H		3 QH	3 H	
Business Policy								4 QH	3 H	
Economics	9 H	12 QH	12 H	9-11 H	9 H	15 H	12 H	15 QH	6 H	10 QH
Electronic Data Processing and Process & Systems Anal					3 H	1 H		4 QH		
English	6 H	8 QH	6 H	6 H	6 H	12 H	12 H	13 QH	6 H	
Finance & Money and Banking	4 H	5 QH	3 H	6 H	6 H	6 H	9 H	5 QH	3 H	5 QH
Health & Physical Education		3 QH	4 H		6 H		2 H	3 QH	1 H	
History	9 H	5 QH		3 H	6 H	6 H		3 QH		
Humanities & Social Sciences	6 H	6 QH	6 H	9 H	3 H	21 H		32 QH	17 H	30 QH

Course Area or Title / University or College	Pace College Undergraduate	Bowling Green State University Undergraduate	Pennsylvania State Undergraduate	Michigan University Undergraduate	Mississippi State University Undergraduate	Fordham University Undergraduate	Valparaiso University Undergraduate	Michigan State University Undergraduate	Arizona State University Undergraduate	University of Denver
Accounting	8 H	9 QH	6 H	6-7 H	9 H	6 H	6 H	10 QH	6 H	10 QH
Business or Commercial Law	6 H	4 QH	3 H	3 H	3 H	3 H		8 QH	3 H	5 QH
Business and Government	2 H	8 QH		6 H	3 H	6 H		3 QH	3 H	
Business Policy								4 QH	3 H	
Economics	9 H	12 QH	12 H	9-11 H	9 H	15 H	12 H	15 QH	6 H	10 QH
Electronic Data Processing and Process & Systems Anal					3 H	1 H		4 QH		
English	6 H	8 QH	6 H	6 H	6 H	12 H	12 H	13 QH	6 H	
Finance & Money and Banking	4 H	5 QH	3 H	6 H	6 H	6 H	9 H	5 QH	3 H	5 QH
Health & Physical Education		3 QH	4 H		6 H		2 H	3 QH	1 H	
History	9 H	5 QH		3 H	6 H	6 H		3 QH		
Humanities & Social Sciences	6 H	6 QH	6 H	9 H	3 H	21 H		32 QH	17 H	30 QH

COURSE AREA OR TITLE / COLLEGES	Face College Undergraduate	Bowling Green State University Undergraduate	Pennsylvania State Undergraduate	Michigan University Undergraduate	Mississippi State University Undergraduate	Fordham University Undergraduate	Valparaiso University Undergraduate	Michigan State University Undergraduate	Arizona State University Undergraduate	University of Denver Undergraduate
Insurance			3 H							
Literature	6 H	10 QH	3 H		6 H					
Management	4 H	5 QH	3 H	3 H	3 H	3 H	13 H		3 H	5 QH
Marketing	3 H	5 QH	3 H	6 H	3 H	3 H		8 QH	3 H	5 QH
Mathematics	6 H	10 QH	6 H	4-8 H	6 H	6 H	8 H	4 QH	6 H	10 QH
Science	6 H	8 QH	12 H	8 H	6 H		8 H	12 QH	3-5 H	10 QH
Speech and Communications	4 H	8 QH	3 H		6 H				5 H	15 QH
Statistics 4	4 H	9 QH	6 H	3 H	6 H			12 QH	3 H	5 QH
Non Business or Free Electives - Religion or Military science		39 QH	24 H			12 H	28 H		6-9 H	30 QH
Additional Business credit electives required	45 H	32 QH	33 H	41-48 H	38 H	24 H	30 H	42 QH	45 H	50 QH
Of which must be taken in Major Area Selected *	24 H	32 QH	18 H	11 H	18 H	18 H	24 H	18-21 QH	24 H	45 QH

COURSE AREA OR TITLE / UNIVERSITY OR COLLEGE	Pace College Undergraduate	Bowling Green State University Undergraduate	Pennsylvania State Undergraduate	Michigan University Undergraduate	Mississippi State University Undergraduate	Fordham University Undergraduate	Valparaiso Universty Undergraduate	Michigan State University Undergraduate	Arizona State University Undergraduate	University of Denver
Accounting	*	*	*	*	*	*	*	*	*	*
Advertising										
Administration, organization and policy				*						
Agricultural Business Management			*							
Business Logistics			*							
Electronic Data Processing and Systems Analysis	*				*					
Finance	*	*	*	*	*	*	*	*	*	*
Industrial Relations				*						
Insurance	*	*		*						
Law	*			*			*			
Management	*	*	*		*		*	*	*	*

COURSE AREA OR TITLE / UNIVERSITY OR COLLEGE	Face College Undergraduate	Bowling Green State University Undergraduate	Pennsylvania State Undergraduate	Michigan University Undergraduate	Mississippi State University Undergraduate	Fordham University Undergraduate	Valparaiso University Undergraduate	Michigan State University Undergraduate	Arizona State University Undergraduate	University of Denver Undergraduate
Marketing	*	*	*	*	*	*	*	*	*	*
Office and Secretarial Administration	*	*			*					
Real Estate	*		*	*						
Statistics		*	*	*	*					
Taxation	*									
Transportation										*
Economics	*	*	*	*	*	*	*	*	*	*
Government										
International Business										
Retailing										
Comptrollership										

SECTION (2)

COURSE AREA OR TITLE / UNIVERSITY OR COLLEGE	University of Boston Undergraduate	University of Wyoming Undergraduate	University of Delaware Undergraduate	Oregon State University Undergraduate	University of South Carolina Undergraduate	Washington University of Saint Louis Undergraduate	University of Mississippi Undergraduate	Miami University of Ohio Undergraduate	Texas Western College Undergraduate	George Washington University
Accounting	6 H	6 H	8 H	9 QH	6 H	3 H	9 H	9 QH	9 H	9 H
Business or Commercial Law	3 H		6 H	6 QH	3 H	6 H		6 QH	3 H	6 H
Business and Government	3 H	3 H	9 H	10 QH	6 H		6 H	3 QH	6 H	9 H
Business Policy				3 QH	3 H		6 H			
Economics	18 H	12 H	12 H	12 QH	12 H	12 H	12 H	20 QH	6 H	6 H
Electronic Data Processing & Process & Systems Anal				4 QH	2 H	3 H			3 H	
English	12 H	8 H	12 H	9 QH	6 H	6 H	6 H	12 QH	12 H	6 H
Finance & Money and Banking	3 H		12 H	4 QH	6 H	6 H		4 QH	6 H	6 H
Health & Physical Education	2 H		2 H	6 QH		4 H	4 H			
History			7 H	9 QH	6 H		6 H		6 H	
Humanities & Social Sciences	18 H	3 H	6 H	12 QH	9 H	21 H	6 H	18 QH	3 H	6 H

COURSE AREA OR TITLE \ UNIVERSITY OR COLLEGE	University of Boston Undergraduate	University of Wyoming Undergraduate	University of Delaware Undergraduate	Oregon State University Undergraduate	University of South Carolina Undergraduate	Washington University of Saint Louis Undergraduate	University of Mississippi Undergraduate	Miami University of Ohio Undergraduate	Texas Western College Undergraduate	George Washington University
Insurance										
Literature			3 H		6 H	6 H	6 H			6 H
Management	6 H	3 H	9 H	3 QH	3 H	18 H	6 H	13 QH	12 H	12 H
Marketing	3 H	3 H	6 H	4 QH	3 H	6 H		4 QH	6 H	3 H
Mathematics	6 H	9 H	3 H	12 QH	6 H	6 H	6 H	9 QH	6 H	6 H
Science	6 H	6 H	8 H		6-8 H	6 H	6 H	18 QH	6 H	6-8 H
Speech and Communications						3 H	3 H		3 H	4-6 H
Statistics	6 H	7 H	8 H	9 QH	6 H	3 H		9 QH	6 H	3 H
Non Business or Free Electives, Religion or Military Science	9 H	32 H	19 H	35 QH			6 H	24 QH	6 H	
Additional Business Credit Electives Required	30 H	32 H	6 H	45 QH	36 H	24 H	42H	34 QH	24 H	30 H
Of which must be taken * in Major Area Selected	21 H	20 H	6 H	18 QH	24 H	24 H	36 H	24 QH	12 H	15 H

COURSE AREA OR TITLE / UNIVERSITY OR COLLEGE	University of Boston Undergraduate	University of Wyoming Undergraduate	University of Delaware Undergraduate	Oregon State University Undergraduate	University of South Carolina Undergraduate	Washington University of Saint Louis Undergraduate	University of Mississippi Undergraduate	Miami University of Ohio Undergraduate	Texas Western College Undergraduate	George Washington University
Accounting	*	*		*	*	*	*	*	*	
Advertising						*				
Administration, organization and Policy										
Agricultural Business Management				*						
Business Logistics	*									
Electronic Data Processing and Systems Analysis	*		*	*		*	*		*	*
Finance	*	*	*	*	*	*	*	*		*
Industrial Relations				*					*	*
Insurance					*		*			
Law							*			
Management		*			*	*		*		

COURSE AREA OR TITLE / UNIVERSITY OR COLLEGE	University of Boston Undergraduate	University of Wyoming Undergraduate	University of Delaware Undergraduate	Oregon State University Undergraduate	University of South Carolina Undergraduate	Washington University of Saint Louis Undergraduate	University of Mississippi Undergraduate	Miami University of Ohio Undergraduate	Texas Western College Undergraduate	George Washington University
Marketing	*	*	*	*	*	*	*	*	*	*
Office and Secretarial Administration							*		*	
Real Estate					*					
Statistics		*					*		*	*
Taxation										
Transportation										*
Economics					*	*	*	*	*	*
Government								*		
International Business	*			*						
Retailing						*	*			
Comptrollership										*

APPENDIX (4)

Master Degrees in

Business Administration

This appendix consists of two (2) sections. Each section consists of four (4) pages with ten (10) colleges or universities presented. It should be noted that the colleges and universities presented in this appendix are not all inclusive. However, an attempt was made to select those which would provide for a representative country wide sample. Some major institutions presented their catalogs in such a manner that made it impossible to incorporate their program into our matrix and still maintain any semblance of comparison. Furthermore, the various courses offered in many of the institutions were of necessity grouped in general areas. In selecting the group in which to include each specific course, the researchers used catalog course descriptions and made no attempt to consider variations in classroom presentation vs the catalog description. Because of the direction of our study, selections were restricted to general business cores of study wherever possible. Of particular note is that in order to include Harvard in our matrix, it was necessary to assume that each month of class for each course listed was equivalent to 1 semester hour of work.

KEY:

H	denotes semester hours
QH	denotes quarter hours
*	denotes areas of selection or major study in which a stated number of hours are required as electives

SECTION (1)

COURSE AREA OR TITLE / UNIVERSITY OR COLLEGE	Michigan University Masters	Mississippi State University Masters	Harvard University Grad Sch of Business Masters	University of Cincinnati Masters	Michigan State University Masters	Arizona State University Masters	University of Kansas Masters	University of South Dakota Masters	Florida State University Masters	University of Calif Los Angeles (UCLA)
Accounting	4 H	3 H		9 H		3 H	4 H	3 H	3 H	4 H
Administrative & Business Policy	3 H		6 H	3 H	4 H	3 H	6 H			6 H
Administration & Management		3 H	2 H	3 H	8 H	3 H				6 H
Analysis, Planning, & Control	4 H		14 H		4 H				3 H	3 H
Business Economy & Public Policy	3 H			3 H		3 H		3 H		3 H
Communication, Speech, and Business Law				3 H		3 H	4 H			3 H
Economics		6 H		12 H	8 H	3 H	3 H	3 H	3 H	6 H
Electronic Data Processing										
Finance	4 H	3 H	5 H	3 H		3 H	4 H	3 H		3 H
Human Behavior & Organization	4 H		3 H							
Industrial Relations							4 H	3 H	3 H	

COURSE AREA OR TITLE / COLLEGE	Michigan University Masters	Mississippi State University Masters	Harvard University Grad Sch of Business Masters	University of Cincinnati Masters	Michigan State University Masters	Arizona State University Masters	University of Kansas Masters	University of South Dakota Masters	Florida State University Masters	University of Calif. Los Angeles (UCLA)
Managerial Economics, Reporting & Control			6 H			3 H	4 H			
Marketing	4 H	3 H	6 H	3 H		3 H	4 H	3 H		3 H
Master's Seminar	3 H							4 H		
Math or Statistics	4 H			6 H		3 H	4 H	3 H	3 H	6 H
Organizational Behavior			7 H				3 H			3 H
Production			5 H				4 H			3 H
Research Methods in Business or Economics		3 H			5 H		4 H		4 H	
Thesis	No	No	No	Opt.	No	Opt.	No	Opt	Opt.	No
Additional Elective Credits Required	27 H	9 H	30 H	24-30 H	29 H	9-15 H	12 H	8 H	18 H	12 H
Of which must be in Business adm. Courses (*) or Selected area	17 H		30 H	12-15 H	24 H	9-15 H	9 H	3 H	9 H	12 H
Accounting & Information Analysis	*			*	*	*		*	*	*

COURSE AREA OR TITLE / COLLEGE	Michigan University Masters	Mississippi State University Masters	Harvard University Grad Sch of Business Masters	University of Cincinnati Masters	Michigan State University Masters	Arizona State University Masters	University of Kansas Masters	University of South Dakota Masters	Florida State University Masters	University of California Los Angeles (UCLA
Administration, Organization and Policy	*					*		*		
Business Economics of Public Policy	*					*				*
Case Analysis			*							
Control			*							
Electronic Data Processing										
Finance	*		*	*	*	*		*	*	*
Industrial Operations										
Industrial Relations	*			*					*	
International Business	*		*							*
Law of Business, History, & Communications	*							*		
Managerial Management or Managerial Economics			*	*						

COURSE AREA OR TITLE / UNIVERSITY OR COLLEGE	Michigan University Masters	Mississippi State University Masters	Harvard University Grad Sch of Busines Masters	University of Cincinnati Masters	Michigan State University Masters	Arizona State University Masters	University of Kansas Masters	University of South Dakota Masters	Florida State University Masters	University of Calif Los Angeles (UCLA) Masters
Marketing	*		*	*	*	*		*	*	*
Personnel & Human Relations					*					
Production &/or Operations Management			*		*					*
Public Utilities										
Real Estate & Insurance	*							*	*	
Statistics	*			*						*
Transportation					*					*

SECTION (2)

COURSE AREA OR TITLE / COLLEGE	George Washington University Masters	University of Rochester Masters	Dartmouth College Masters	University of Detroit Masters	Marquette University Masters	University of California Berkeley Masters	University of Virginia Masters	San Francisco State College Masters	University of Toledo Masters	Saint Louis University Masters
Accounting		3 H	7 H	2 H	3 H	8 H	3 H		3 H	6H
Administrative & Business Policy		3 H		2 H	3 H				3 H	3 H
Administration & Management	6 H		6 H		2 H				3 H	3 H
Analysis, Planning, & Control		3 H			3 H					
Business Economy & Public Policy		3 H	3 H	2 H		4 H	6 H			
Communication, Speech and Business Law			3 H				12 H	3 H		
Economics		7 H	9 H	4 H	5 H	8 H	3 H		3 H	9 H
Electronic Data Processing			2 H							
Finance		4 H	7 H		2 H	4 H	6 H	3 H	3 H	6 H
Human Behavior & Organization	3 H	3 H					3 H			3 H
Industrial Relations			2 H							

COURSE AREA OR TITLE / COLLEGE	George Washington University Masters	University of Rochester Masters	Dartmouth College Masters	University of Detroit Masters	Marquette University Masters	University of Berkeley Masters	University of Virginia Masters	San Francisco State College Masters	University of Toledo Masters	Saint Louis University
Managerial Economics, Reporting & Control		4 H	10 H	2 H	2 H	4 H	6 H	3 H	3 H	6 H
Marketing	3 H	5 H	3 H	2 H	2 H					
Master's Seminar	3 H	6 H	10 H	2 H	6 H	8 H	3 H	3 H	3 H	
Math or Statistics		3 H				4 H				
Organizational Behavior		4 H	4 H		2 H	4 H	6 H			
Production			3 H			4-6 H			3 H	
Research Methods in Business or Economics	3 H									
Thesis	Yes	Yes	No	Opt.	Opt.	No	NO	Opt.	No	No
Additional Elective Credits Required	12 H	12 H		14 H	2 H	12-16 H	24 H	18 H	9 H	9 H
Of which must be in Business Adm. Courses (*) or Selected area	9 H	6 H		14 H	2 H	12-16 H	21 H	12 H	6 H	9 H
Accounting & Information Analysis	*	*		*	*	*	*	*	*	*

COURSE AREA OR TITLE / COLLEGE	George Washington University Masters	University of Rochester Masters	Dartmouth College Masters	University of Detroit Masters	Marquette University Masters	University of California Berkeley Masters	University of Virginia Masters	San Francisco State College Masters	University of Toledo Masters	Saint Louis University
Administration, Organization and Policy										
Business Economics or Public policy	*	*		*	*		*			
Case Analysis										
Control										
Electronic Data Processing					*					
Finance		*		*	*	*	*	*	*	*
Industrial Operations		*		*						
Industrial Relations	*			*		*		*		
International Business				*		*		*	*	
Law of Business, History & Communications					*					
Managerial Management or Managerial Economics				*				*	*	*

COURSE AREA OR TITLE / UNIVERSITY OR COLLEGE	George Washington University Masters	University of Rochester Masters	Dartmouth College Masters	University of Detroit Masters	Marquette University Masters	University of California Berkeley Masters	University of Virginia Masters	San Francisco State College Masters	University of Toledo Masters	Saint Louis University
Marketing		*		*	*	*	*	*	*	*
Personnel & Human Relations	*				*					
Production &/or Operations management		*			*	*	*	*		
Public Utilities						*				
Real Estate & Insurance						*				
Statistics		*			*	*			*	
Transportation						*				

APPENDIX (5)

Doctoral Degrees in Business Administration

This appendix consists of two sections. The first section presents a matrix showing the requirements for Doctoral Degrees in the Business Administration and Management Field.

The second section consists of selected Institutions catalog descriptions for requirements and information concerning this field.

SECTION (B)

	U.C.L.A.	UNIVERSITY OF COLORADO D.B.A.
Admission:	Graduate Record Examination. Bachelor's Degree with B Average	Graduate Record Examination. Bachelor's Degree with Grade Point Average of 3.3 (0-4 Syst.); (B+).
Residence:	One Year (3 Quarters).	Four Semesters; Minimum 48 Semester Hours Course Work.
Major/ Minor:	Accounting, Finance, Behavioral Science, Business Economics, Industrial Relations, Mgt. Theory and Policy, Marketing, Operations Management, Quantative Methods.	Major Fields: Three (2 of 6 plus 1 elective). Minors: Research Methods, Quan. Analysis, Economics, Business Conditions.
Language:	Any Two of French, German or Russian.	English Plus Two Foreign.
Minimum Program Length:	Bachelor's Degree Plus Three Years.	Bachelor's Degree Plus 6 Semesters.
Form of Credit:	Quarter Hours.	Semester Hours.
Time Limit: To complete requirements	Five Years.	Four Years From Comprehensive Exam.

CORNELL	HARVARD	ILLINOIS
Graduate Record Examination. Master's or Bachelor's Degree.	Graduate Record Examination. Master's Degree.	Graduate Record Examination. Master's or Bachelor's Degree.
Six Terms Beyond Bachelor's Degree.	One Year Above Master's Degree.	One Year Above Master's Degree.
One Major; Two Minors of Ten. Majors: Business Adm., Mgt. Economics, Org. Theory & Behavior, Public Administration. Minors: Dev. & Public Adm., Finance & Acct., Hospital Adm., Marketing, Prod., Quatative Analysis.	One Special Field.	Unspecified. Must Fulfill Requirements on Individual Basis.
One of Six.	D.B.A. - None Ph.D. - One	Any Two of French, German or Russian.
Bachelor's Degree Plus Two Yrms.	Master's Degree Plus One Year of Course; Master's Degree Plus One Year of Thesis.	Bachelor's Degree Plus 3 Years; Master's Degree Plus 2 Years.
Semester Hours.	Semester Hours	Semester "unit."
Two Years.	Varies	Varies.

MICHIGAN STATE UNIV.	UNIVERSITY OF MICHIGAN	M.I.T. Ph.D. In Management
raduate Record xamination. aster's or Bachelor's egree.	Graduate Record Examination. Master's Degree in Business Adm., Econ., or Equivalent.	Graduate Record Examination. Bachelor's Degree or its Equivalent.
ne Year Above aster's Degree.	One Year Above Master's Degree.	Two Years; Course Requirements Individually Set.
nspecified. Must ulfill Requirements n Individual Basis.	Three of Eleven Major Subjects Offered.	Major Fields: Four (1 of 10 Areas of Application, Plus 1 Primary Discipline, Plus 2 Electives). Minors: 9 (as for MS in Management).
ne of Three Options:) Reading of French, German, Russian.) 2 Plus Education Language.) 1 Plus 12 Credits (extra) in nonrelated courses or grad. courses in his field. ne for D.B.A.	None Stated.	English Plus Either: 1) Read and Speak One Foreign, or 2) Read and Translate 2 Foreign.
chelor's Degree Plus 3Years; ster's Degree Plus 2Years.	Bachelor's Degree Plus 3 Years; Master's Degree Plus 2 Years.	Bachelor's Degree Plus 3 Years.
arter Hours.	Trimester Hours.	Unit (consists of approx. 15 hours per term, both in and out of class).
ven Years.	Ten Years From Matriculation.	Not Specified.

CITY UNIV. OF NEW YORK Ph.D. In Business	NORTHWESTERN UNIV. Ph.D. In Business	PURDUE Ph.D. In Industrial Administration
Graduate Record Examination. Bachelor's Degree with Minimum Average of "Approx. B" or Master's.	Graduate Record Examination. Master's Degree or Equivalent.	Graduate Record Examination. Master's Degree or Equivalent.
One Year; Minimum 60 "Credits," 30 in residence).	One Year (3 Quarters).	One Year (2 Semesters).
Major Fields: Three (2 of Plus 1 Elective). Minors: 10 (as for MBA). Must also demonstrate competence in Economic Analysis and Mathematical Statistics.	Accounting, Finance, Marketing, Production Management, Quantative Analysis. 5/5	Accounting, Finance, Marketing, Manufacturing, Managerial Policy. 5/4
English Plus at Least One Foreign.	One.	Read Any One of French, German, Russian.
Bachelor's Degree Plus Years.	Bachelor's Degree Plus 9 Quarters.	Bachelor's Degree Plus 6 Semesters.
"Credit Hour" (not defined in bulletin).	Quarter Hours.	Semester Hours.
Eight Years From Matriculation, excluding Approved "Leave of Absence."	Eight Years.	None.

SECTION (2)

VI DOCTORAL DEGREE PROGRAMS

Degrees Offered

The Graduate School offers the Doctor of Philosophy degree in the following departments or areas: Biology, Botany, Chemistry, Child Development, Criminology and Corrections, Economics, Education, English, Food and Nutrition, French, Geology, Government, History, Home and Family Life, Humanities, Marriage and Family Living, Mathematics, Meteorology, Music Education, Music Theory, Oceanography, Philosophy, Physical Education, Physics, Physiology, Psychology, Sociology, Spanish, Speech, Statistics, and Zoology.

The Graduate School offers the Doctor of Education degree in the following departments or areas: Education, Music Education, and Physical Education. Through the Department of Music, it offers the Doctor of Music degree.

Policies Governing the Doctor of Philosophy Degree

Introduction

The concept entertained in this Graduate School is that the Doctor of Philosophy degree is a research degree designed to produce the critical scholar. Programs are administered on the basis of this concept and under the assumption that it will foster disciplined effort and high endeavor on the part of the student.

The degree is granted only to those students who (1) have mastered definite fields of knowledge so that they are familiar not only with what has been done in their specific fields, but as well with the potentialities and opportunities for further advances, (2) have demonstrated capacity to do original and independent scholarly investigation or creative work in their specific fields, and (3) have ability to integrate their specific fields of specialization with the larger domains of knowledge and understanding.

The student should observe carefully all the policies outlined below.

Admission

Admission in the formal sense is governed by the same minimum standards given earlier in this *Bulletin*. However, a special effort is made to select and to admit as student-scholars only those who appear clearly qualified to accomplish work of a genuinely graduate character.

Qualifying Examination

The student who has been admitted to the Graduate School and who is working toward the Doctor of Philosophy degree will, before the end of his third trimester of post-baccalaureate study, make application to the head of the department in which the student has a major interest to take the departmentally-administered qualifying examination. It will be both an oral and written examination, designed to appraise initially the student's ability to pursue the Doctor of Philosophy in the field and to facilitate the counseling of eligible students in the development of their program of studies. For students completing a master's degree in this Graduate School, a department may authorize, with prior permission of the Graduate School, a waiver of the qualifying examination on the basis of results of the comprehensive examination.

The department will notify the Graduate School as to the results of the qualifying examination: passed, conditional, repeat, failed, or waived; date passed; and degree sought.

Residence

A minimum of three academic years of graduate study beyond the baccalaureate degree is required in all doctoral programs. In many cases it will be necessary for the student to devote a longer period to graduate study. After the student has earned a master's degree or thirty-six semester hours of graduate credit, he must spend on The Florida State University campus a period of continuous enrollment which must include two regular trimesters. In each of these he must be in full-time residence and must carry twelve semester hours of graduate credit. This may be reduced to six semester hours of graduate credit for students who hold assistantships and are pursuing an approved full-time program of independent study, research, or work related to their educational program. Dissertation credit cannot be used to satisfy the residence requirement.

The student must be registered in the Graduate School in the term during which requirements for a degree are to be completed. However, this registration may be entirely in Dissertation 699 and need not involve the student's physical presence on campus.

Course Requirements

Because the Doctor of Philosophy degree represents the attainment of independent and comprehensive scholarship in a selected field rather than the earning of a specific amount of credit, there is no Graduate School-wide minimum course requirement beyond that implied by the residence requirement. Individual programs will be planned so as to maximize the likelihood that the student will have a thorough mastery of his field before attempting comprehensive examinations.

During his first trimester of work, the student must register for Library Science 500 or an approved equivalent. (For further details, see the "Competency in Documentation" section of the Master's Degree Chapter of this *Bulletin*.)

Major Professor

As soon as the student has passed the qualifying examination, he should ask the head of his major department to recommend a major professor. The department head will ask the Dean of the Graduate School to appoint the major professor. He must be a member of the Graduate Faculty with Doctoral Directive status, who has special competence in the student's proposed area of concentration. The appointment must be mutually agreeable to the student, major professor, department head, and Dean of the Graduate School.

Supervisory Committee

Upon request by the major professor, the Dean of the Graduate School will appoint the supervisory committee which will be in charge of the work of the student through to the completion of requirements for the degree. Normally, the major professor will suggest the constituency of this committee for approval by the Dean of the Graduate School. Membership on the supervisory committee must include adequate representation from the student's major field, when applicable, his minor field, and a representative at large from the graduate faculty in an allied area. If a student's doctoral program includes twelve or more semester hours in any field other than the major one, this related field will be considered a minor and must be represented on the supervisory committee. The Dean of the Graduate School and the head of the major department, if not otherwise members of the supervisory committee, will be notified of meetings and may attend as non-voting members.

Program of Studies

Within ten days after notification of the appointment of his supervisory committee, the student will submit to his major professor, for approval by a called meeting of the supervisory committee, a complete plan of courses to be studied. This program of studies must be signed by each member of the committee and the head of the major department. The latter will file one copy with the Dean of the Graduate School.

Foreign Language Requirement

The general Graduate School requirement regarding foreign languages and the Doctor of Philosophy degree is that the candidate must demonstrate an acceptable reading knowledge of two foreign languages or demonstrate a high-level command of a single foreign language. A high-level command of a foreign language means the ability to speak, to understand, and to write the language as well as to read it fluently. The acceptable reading knowledge ability level and the acceptable performance at the high-level command of the language will be certified by the Department of Modern Languages. A foreign student (one whose native language is not English and whose educational career, at least up to the university level, was carried on in some non-English language) will be permitted to use English as a foreign language and should be required to pass a high-level competency examination in all phases of its use. The acceptable command of English will be certified by the Department of English. In addition, the foreign student will be required to pass a reading knowledge examination in one additional language other than his own. Under no circumstances may a foreign student be allowed to use his native language as a foreign language.

Within the limitations of the general Graduate School requirement as noted above, each department will prescribe its own foreign language requirements for the Doctor of Philosophy degree. The Graduate School maintains a list of the various departmental decisions in this matter. With respect to an individual candidate for a doctoral degree, the selection of the two languages to be learned to acceptable reading ability or the one language to be learned to a high-level command will be the responsibility of the supervisory committee with the approval of the department. Any variation from the departmental limitations as recorded with the Graduate School will require special departmental approval.

Reading knowledge exemption examinations are conducted by the Department of Modern Languages near the beginning and end of each regular trimester and at the beginning of term two of the third trimester. (See calendar in this *Bulletin* for exact dates.) The student must register for these examinations in the Graduate School Office at least ten days prior to the date shown in the calendar. If a candidate fails an exemption examination twice, he must provide the Department of Modern Languages with satisfactory evidence of remedial work before he will be allowed to take another examination.

The language courses numbered 551 and 552 are service courses which prepare for the language exemption examinations. The student may take these courses as many times as needed. The grade of NC (no credit) will be assigned for 551 and 552 courses. When the student demonstrates a reading knowledge at an acceptable level, this fact will be recorded on his permanent record. Examples of this recording will be: Exempt—reading level in German, Exempt—high-level command in French. Certificates of reading-level competence will be accepted from recognized graduate schools which offer a doctoral program and from which the student is transferring other graduate credits.

The languages are instruments of research and a means of affording continuing access to the materials and literature of foreign cultures; their use in these relationships should be exercised as a matter of common practice. Therefore, the candidate must successfully meet the language examination requirement before he is eligible to take the comprehensive examinations.

Comprehensive Examination

Application to take comprehensive examinations must be made to the Graduate School at least seven (7) days prior to the expected date of examination.

The student will make application, through his major professor, to the Dean of the Graduate School to take comprehensive examinations when course work has been essentially completed. The student must have a B average on The Florida State University course work at the time the application is submitted. Responsibility for suggesting the dates, designating the place, and presiding at the examination rests with the major professor. The examination must be both written and oral. It should be designed to fulfill several purposes; the examining committee should inquire into the feasibility of the dissertation project to give it the authoritative grounds on which to recommend acceptance or rejection; the examination should cover subjects and courses of both major and minor fields and should be a rigid test of the student's scholarly competence and knowledge; the examination should be an inquiry of the student's mastery of bibliography and of the student's powers of bibliographical criticism; and the examination should afford the examiners the basis for constructive recommendations as to subsequent formal or informal studies to be undertaken by the student.

If not designated as regular members of the examining committee, the head of the major department and the Dean of the Graduate School will be non-voting members. Other members will be appointed by the Dean of the Graduate School, at his discretion, or on recommendation of the major professor. Normally the examining committee will be essentially identical to the supervisory committee.

The examining committee will report its recommendation to the Graduate School: passed, failed, additional work to be completed, to be re-examined; the report following a re-examination must be passed or failed. The written comprehensive examination papers must be filed in the Graduate School office.

Approval of Prospectus

After passing the comprehensive examination, the student must submit to the Graduate School a research-project topic suitable for a doctoral dissertation, in a form known as the *Prospectus*. (For details of form to be followed in preparation of the prospectus, consult the Graduate School.) The prospectus must be approved by the supervisory committee and the head of the major department and submitted to the Dean of the Graduate School in triplicate for his approval.

Admission to Candidacy

A student who has successfully completed the foreign language and comprehensive examinations and has had the prospectus for his dissertation project approved will be considered a candidate for the degree of Doctor of Philosophy and will be so notified by the Dean of the Graduate School.

A student must be admitted to candidacy at least six months prior to the granting of the degree. The purpose of this requirement is to assure a minimal lapse of time for effective work on the dissertation after acquisition of the basic competence and after delineation of the problem and methods of attack. Typically the student may expect to spend at least an academic year of work on the dissertation.

Dissertation

A doctoral dissertation must be completed on some topic connected with the major subject. To be acceptable it must be an achievement in research, constituting a significant contribution to knowledge.

A minimum of three complete and approved typewritten copies must be prepared in accord with the regulations of the Graduate School regarding style and form. Details of style and distribution may be secured from the Dean's Office. Publication of the dissertation or an approved abstract thereof is required (see below).

The student must register for Dissertation 699 in each trimester in which he is doing a substantial amount of work on his dissertation. A doctoral degree will be granted only after registration for between twelve and thirty semester hours of dissertation credit. This is so whether or not the student is actually in residence, and the student must be registered in the term during which the dissertation is submitted to the Graduate School for approval. Before registering for dissertation, the student should consult his major professor as to the proportion of student's time which is expected to be devoted to dissertation work. The number of hours listed will show the proportion of time (related to fifteen as an indication of full time) to be devoted to dissertation. For example, Physics 699, 5 hours, will indicate that the student expects to devote one-third of his time to dissertation. Final approval of the dissertation by the supervisory committee is a necessary prerequisite to the awarding of the degree, without regard to the number of hours under 699 for which the student has registered and the grade reports which have been made by the major professor.

Publication of Dissertation

Students are urged to publish dissertations, either in full or in part, through standard media for scholarly works. Only through such publication will the work be truly completed, for the acquisition of knowledge leads to maximum benefits only if that knowledge is made widely available among scholars everywhere.

To assure minimum availability of the work, an acceptable and approved abstract of the dissertation and the unbound original copy of the dissertation must be sent to University Microfilms, Inc. for inclusion of the abstract in *"Dissertation Abstracts."* The cost to the student will be $25 plus cost of the two-way transportation. Details may be secured from the Graduate School Office. If the student wishes to copyright the dissertation, an additional charge will be made to cover this expense.

Examination in Defense of Dissertation

The examination will be oral. Responsibility for suggesting the time, designating the place, and presiding at the examination rests with the major professor. The examination must be completed at least one week prior to the date on which the degree is to be conferred.

The completed dissertation must be submitted to the Supervisory Committee *at least one week before the date of the oral examination and in no case later than the final date shown in the calendar in the front of this Bulletin.* The supervisory committee, together with the head of the major department, and such other members of the faculty as may be appointed by the Dean of the Graduate School, will conduct the examination. The Dean will invite all members of the Graduate Faculty to attend. At least two weeks prior to the date of the examination, the major professor will present to the Dean's Office the data to be included in the invitation.

The abstract of the dissertation must be presented to the Graduate Office for approval of form prior to the defense examination. The examining committee will approve the content of the abstract.

The examining committee will certify to the Dean of the Graduate School the results of the examination: passed, failed, to be re-examined; the report following a re-examination must be passed or failed.

Clearance for Degree

Upon completion of other requirements, the candidate will secure from the Dean's office a "Clearance for Doctoral Degree" form which will provide space for certification by all persons concerned that all requirements for the degree have been met. This form must be filled out completely and submitted to the Graduate School before the student is eligible for the degree.

DOCTOR OF PHILOSOPHY PROGRAM

The Ph.D. program in Business Administration is an advanced curriculum of work in organization and management studies, including intensive training in research methods applicable to problems concerned with formally organized enterprises. The program prepares students for careers in university teaching, and research, or as staff specialists in business firms and other organizations.

The Ph.D. program is intended for mature students with demonstrated intellectual capacity, who can devote full time to academic work. Part-time students are not accepted. Applications are welcomed from persons with degrees in the various social, behavioral, and technological sciences, and in other academic fields, as well as from those who have done previous work in organization and management studies.

To be considered for admission, an applicant must hold a bachelor's degree from an accredited institution, with a scholarship average of at least B (3.0 grade points); and he must have at least a B+ average in any graduate work previously undertaken. However, currently only a limited number of applicants are being admitted, with preference given to those showing particular promise for doctoral studies. A master's degree is *not* needed for admission.

Advance preparation is normally expected to include course work equivalent to Business Economics 401, Mathematics for Management 402, Survey of Financial and Management Accounting with Computing Methods 403, Business Fluctuations 406, and Business Statistics 407. However, an applicant whose record is otherwise outstanding may be admitted prior to satisfying these requirements, on the condition that they be met as quickly as possible.

The Program of Study

Doctoral study is based on intensive collaborative effort between student and faculty. It is important that the applicant establish contact with faculty in his proposed major field area, and with the Doctoral Studies Office, if possible, prior to completion of the application procedure. Shortly after he enters the program, each student is required to propose an advisory committee, to be approved by the Director of Doctoral Studies. This committee consists of a chairman (the doctoral advisor), of another faculty member in the student's major field area and of two faculty members, representing each of the minor fields. Subject to the committee's guidance, the student develops a program of study and sets target dates for the completion of the various requirements for the Ph.D. degree. The method of preparation for fulfilling these requirements is largely a matter of agreement between the student and his committee. Beyond University requirements for residence (a minimum of two years of which one, ordinarily the second, is spent in continuous residence at UCLA), the School does not require

courses or credits as such. Preparation is not usually confined to course work: independent study, participation in research, and teaching may play important roles in a student's learning experience.

Specific Requirements

1. Business Administration Core. Each student must attain a basic literacy and analytic competence in business administration, early in his course of study. The holder of an MBA degree from UCLA (or another comparable degree) is considered to have fulfilled this requirement. Others with substantial but less extensive backgrounds in organization and management studies may be assigned additional work to complete this requirement.

Course work and independent study may be used by the student who lacks the formal background in business administration to demonstrate the necessary competence and to prepare for a one-hour integrative oral core examination. A core examination syllabus for the examination is available from the Director of Doctoral Studies.

2. Fields of Specific Interest. Each student must develop competence in two minor fields, in addition to his area of major interest and concentration. The three fields together must be patterned to provide a strong central focus, to which one of the minor fields adds breadth and perspective. The permissible combinations of minor fields depend upon the student's major. If the major is in an *area primarily associated with management studies*, then at least one minor must be in a *related discipline*. If the major is in a *related discipline*, then at least one minor must be in an *area primarily associated with management studies*.

A field based mainly on work offered within the School is ordinarily considered to be an *area primarily associated with management studies;* except that most fields in behavioral science for management or in quantitative methods, and some fields in business economics or in urban land economics, are considered to be *related disciplines*.

Students are encouraged to choose minor fields in *related disciplines* based mainly on work offered in other departments of the University. Examples of such fields include economics; subfields of economics, such as econometrics, public finance, and economic development; behavioral sciences, such as psychology, sociology, and anthropology; quantitative fields, such as mathematics and mathematical statistics; and fields in engineering, such as systems engineering.

The level of competence required in a minor field is defined to be that needed for first-rate instruction of basic courses in the field. The preparation normally consists of the equivalent of five or six upper division and graduate courses. To complete a minor field, the student is normally required to pass an examination, or to complete a prescribed group of courses with a specified, high grade point average. Normally, both minor fields must be completed before the major field examination may be attempted.

3. Foreign Languages. Requirements for foreign languages are specified in detail by an announcement available from the Director of Doctoral Studies.

4. The Major Field. The level of competence required in the major field is that of a professional scholar specializing in the field and contributing to its progress through research. This implies a broad knowledge of the field and its literature, plus penetration to the level of current research in at least one substantial subfield. Preparation normally requires the equivalent of at least one year (four quarters) of full time advanced study. The teaching areas have broad discretion concerning the details of the requirements for completing the major fields.

The major field must be completed prior to taking the qualifying oral examination.

5. Evidence of Research Ability. Before taking the qualifying oral examination, each student must provide evidence of research ability, normally by submitting a finished paper which demonstrates that he can *organize research activity* and *carry it to completion*. A master's thesis may satisfy this requirement, or a published research paper, or a paper written as a course project. Work carried out expressly to fulfill this requirement may be designed with the intent to lay the groundwork for a dissertation.

The research paper is submitted to the Director of Doctoral Studies, and must be approved by a review committee.

6. Qualifying Oral Examination. A student is officially advanced to candidacy for the Ph.D. when he passes the qualifying oral examination conducted by his doctoral committee. This committee is distinct from (and supersedes) the advisory committee which guides the student through his earlier work, though often members of the advisory committee will also serve on the doctoral committee. The qualifying oral examination focuses primarily on the student's proposal for the doctoral dissertation, but it need not be confined to this topic.

7. Dissertation; Final Oral Examination. The acceptance of the dissertation and the satisfaction of the student's doctoral committee in his final oral examination complete the formal requirements for the Ph.D.

Each candidate must prepare and submit his dissertation in accordance with the *UCLA Instructions for the Preparation and Submission of Doctoral Dissertations*, available from the Graduate Division. It is recommended that each candidate attend one of the orientation meetings on manuscript preparation announced in the STANDARDS AND PROCEDURES FOR GRADUATE STUDY AT UCLA.

In addition to filing copies of the dissertation with the Dean of the Graduate Division (not later than two weeks before the end of the quarter in which the degree is to be granted), the candidate must file one copy with the Director of Doctoral Studies, Graduate School of Business Administration.

The final oral examination, conducted by the student's doctoral committee, but open to the faculty of the University, deals primarily with the subject matter of the dissertation. This examination must be passed within three years of the quarter in which the student is advanced to candidacy, or he will be required to pass an additional oral examination on his major field before submitting his dissertation.

8. Residence. The minimum required residence for the Ph.D. program is two academic years (six quarters). The candidate must be registered for the quarter in which the degree is granted.

MISSISSIPPI STATE UNIVERSITY

DOCTOR OF BUSINESS ADMINISTRATION

The Graduate Faculty of the College of Business and Industry, within the umbrella of Graduate School policy, offers the professional degree of Doctor of Business Administration. The nature of the degree and the general pattern of requirements are indicated below.

OBJECTIVE. The DBA degree will permit students to earn a professional degree especially designed to equip them for careers as college teachers of business administration and as professional business researchers and analysts. The interlocked areas of study: problems of business, business administration and research competency, impose rigorous requirements on those pursuing the program. Each student must develop an area of specialization in one of the functional areas of business, and in turn such specialization must be imposed on or interrelated with training in the general skills and functions of management (administration). Each specific program thus must be designed to provide training in business functions and the economic environment. In addition the program requires that students demonstrate a thorough understanding of the administrator's point of view, a proficiency in the utilization of research tools, and a research competency as indicated by the submission of a satisfactory dissertation.

ADMISSION. The applicant for admission to the doctoral program in economics or business administration must hold a bachelor's degree from a recognized institution of higher learning and have demonstrated high promise of benefit from graduate study. All requirements stated in the Graduate Bulletin must be met.

GRADUATE COMMITTEE. The program and studies of each student will be directed by a five-member graduate committee, composed of the major professor as chairman and a second committee member from the major (primary) field, one faculty member from each of the core areas as identified below.

COURSE HOUR REQUIREMENTS. The doctoral degree in Business Administration will be awarded only to students who have demonstrated mature scholarship and the ability to conduct independent research, the results of which are meaningful in clarifying or solving difficult problems. Special emphasis is placed on the fact that the degree is not granted as a result of the student's having taken a given number of courses or having earned a given amount of credit hours. These factors, while obviously important, will vary for different students and there is no total number of courses or hours which will satisfy the degree requirements uniformly for all students. Instead, the requirements should be thought of primarily from the standpoint of the student's ability to satisfy the Graduate Faculty that he or she has a thorough grasp of the fields selected. In all cases, however, the student must meet the minimum course requirements stipulated by the Graduate School.

At least three academic years beyond the Bachelor's degree are necessary to meet the minimum requirements for the doctoral degrees. Three academic years shall be normally considered 90 credits. The student will

MICHIGAN STATE UNIVERSITY

Doctor of Philosophy

The degree of Doctor of Philosophy is earned primarily by prospective college or university teachers and staff and research people in business, government, and industry. This program provides a broad understanding of business administration, with opportunity for developing a high degree of specialization in one of the following fields: accounting, finance, management or marketing. One of the business administration fields is designated as the major field; the other three fields, including economic analysis, as minor fields.

Admission

Students may enter upon this program with a bachelor's degree from a recognized educational institution; an academic record equivalent to 3.00 *(B)* and showing promise of success in advanced study; personal qualifications of sound character, perseverance, intellectual curiosity, and an interest in research. They may earn a degree of Master of Business Administration first, or they may proceed directly toward the degree of Doctor of Philosophy.

Advanced students may be admitted to the program for the degree of Doctor of Philosophy if they meet the requirements stated above and if they have completed work equivalent to that required for the degree of Master of Business Administration granted by this University, or if they are sufficiently well prepared to meet those requirements while engaged in the program for the Doctor of Philosophy degree.

Each applicant for admission must take the Admission Test for Graduate Study in Business available through the Educational Testing Service, 20 Nassau Street, Princeton, New Jersey.

Requirements for the Degree

1. No minimum number of credits is specified but a high level of competency is required in four areas of study beyond the requirements for the degree of Master of Business Administration granted by this

University. The amount of course work required in each area depends upon the candidate's background, including courses previously taken – one area to be economic analysis and the other three to be chosen from the following: accounting, finance, management, marketing, and a related area.

2. A reading knowledge of two foreign languages is required. However, a program of course work in an approved field may be substituted for one foreign language.
3. The Doctoral Seminar. A continuing forum for discussion of the progress and results of research carried on by doctoral candidates and by faculty members.
4. The Doctoral Thesis. A demonstration of a high level of competence in investigation and presentation, and an addition to knowledge, by means of a contribution of new knowledge or theory, or a major evaluation or reorientation of existing knowledge or theory, or a substantial empirical confirmation or refutation of accepted principles.
5. Written comprehensive examinations in economic analysis and in three areas selected by the candidate from the following: accounting, finance, management, and marketing in the field of business administration, and a related area. Competence in one or two of the above business fields not selected for examination is to be established through course work and credit. One of the business administration areas selected is identified as a major examination area, and all of the other areas selected for examination, including economic analysis, are identified as minor areas. Preparation for the major area examinations normally requires a significantly higher level of competence and substantially more course work than the preparation for each of the minor area examinations.
6. An oral examination is required upon successful completion of the written comprehensive examinations.
7. Oral presentation of the results of the thesis research to the faculty is required after the thesis has been approved.

Academic Standards

Each student must attain at least a *B* average by the end of the second full term of work. He must thereafter maintain that average, or, on the initiative of the department and approval of the dean, he will be asked to withdraw.

Residence requirements, transfer credits, and the time limit for the degree are in accordance with all-University regulations.

UNIVERSITY OF MICHIGAN

Doctor of Philosophy

The primary purpose of the Ph.D. Program in Business Administration is to prepare students for successful academic careers in leading schools of business. Although the main thrust is toward the academic, it is recognized that the program also should prepare individuals with an interest in research-oriented careers in business and government. The training of these students is regarded as being compatible with the training of academicians. However, each Ph.D. applicant should realize that he is aspiring to enter a profession of scholarship in which his own initiative must provide the main impetus to improvement. Emphasis in the program is placed on thorough training in economic analysis and policy, in one or more of the functional fields of business, and in the application of accounting, mathematics, statistics, psychology, and computers in the solution of business problems.

The requirements for the Doctor of Philosophy in business administration at The University of Michigan include:

1. A basic minimum core of work in the management foundation areas which offer concepts, methods, and techniques that can be applied in research and in decision-making.

2. A basic minimum core of instruction in the principal management decision areas of business administration. The work introduces the student to the kinds of decisions characteristic of business management, develops an appreciation of the relationships between the functional areas, and cultivates an understanding of the nature and difficulties of business decision-making.

3. Intensive study in one area of specialty in which the student plans to do most of his teaching and research. The goal is preparation for future creative work by the student that will contribute to the on-going development of his major field. The emphasis, therefore, is on cultivating a depth of understanding. The student should be able to view in perspective his specialty as a growing field of knowledge and explore aspects of it in greater detail than is possible in typical M.B.A. courses, which necessarily were designed to serve somewhat different educational objectives. An important part of the doctoral work for one's special field is appropriate study in other disciplines beyond that represented in the management foundation subject core referred to in point 1 above.

4. A basic minimum requirement of training for research. The work includes systematic instruction in the principal methods of conducting inquiries and techniques of analyzing data.

5. A program of study designed to help the student become an effective teacher, and to provide him with the training necessary to evaluate and develop courses of instruction.

The Ph.D. student works closely with a distinguished faculty dedicated to teaching and research, becomes well acquainted with several talented young men with similar professional objectives, and enjoys the finest of physical facilities, library resources, and equipment. He becomes an integral part of a community of scholars deeply devoted to learning and the search for truth. He experiences the excitement of new ideas and the thrill of new research discoveries. A limit on enrollment preserves the richness of the opportunity for those who can gain most from the experience and give most to society in return. The School seeks to give every Ph.D. student the chance to participate in an organized research project before beginning his doctoral dissertation and the opportunity to gain some experience in teaching before entering the profession.

The Ph.D. Program in Business Administration is offered by the faculty of the Graduate School of Business Administration, although the students are formally enrolled in the Horace H. Rackham School of Graduate Studies. Affiliation of the program with the Rackham School makes readily accessible the extensive resources of the entire University. The admission requirements of the Horace H. Rackham School of Graduate Studies, which must be met by applicants for the Ph.D. degree in Business Administration, are, in brief:

A bachelor's or higher level degree from an accredited institution. (Although an M.B.A. is not a preliminary requirement for the Ph.D., a student may, if he wishes, earn an M.B.A. degree en route to the Ph.D. in Business Administration.)

Previous high quality work at an accredited university.

Ability to profit from academic work at the Ph.D. level, such as may be evidenced by letters of recommendation, academic and business experience, and interviews.

In addition, the Graduate School of Business Administration requires the Admission Test for Graduate Study in Business. (See page 20.) One year of mathematics through analytic geometry and calculus plus Statistics 511, Introduction to Computer Programming (or the equivalent), are preadmission requirements for the Ph.D. program.

At the doctoral level of study the completion of specific courses is not the major objective, although graduate course offerings constitute a primary means for advanced study, and breadth of preparation is assured by advanced course requirements in certain basic areas of business administration. The first phase of a Ph.D. applicant's work is preparation for comprehensive preliminary examinations carried on under the supervision of the Doctoral Studies Committee of the Graduate School of Business Administration faculty. After satisfactory completion of these written examinations each applicant is given an oral examination to test his readiness to proceed to the research and dissertation phase of the program as a doctoral candidate.

The final stage, requiring independent research and the preparation of a dissertation, affords each candidate an opportunity to delve deeply into some problem requiring philosophical treatment and to demonstrate ability to contribute to knowledge in the field. A special committee is appointed for each candidate to supervise his research and finally to examine him on the thesis based upon it. Financial aids in the form of grants, fellowships, and assistantships are available to qualified Ph.D. applicants and candidates.

For more detailed information and a special brochure, admission forms, or application blanks for financial aid, please write to: Professor Dick A. Leabo, Director, Doctoral Studies Program, Graduate School of Business Administration, The University of Michigan, Ann Arbor, Michigan 48104.

The Doctoral Program

The Doctoral Program, leading to the degree of Doctor of Business Administration, is intended primarily for those who wish to prepare for careers on faculties of schools of business administration. It is also relevant to those seeking careers in business or government.

The first phase of the Doctoral Program is designed to give candidates a broad substantive knowledge of business and an understanding of the administrative point of view. For candidates who have not had the type of preparation offered in the M.B.A. Program, special doctoral courses are available. All candidates must demonstrate their competence in a series of oral and written examinations, called the General Examination.

The second major phase includes the scholarly study of a special field, including its literature, its characteristics, and its problems, and the passing of a Special Field Examination which tests this knowledge and competence.

The third major phase includes the choice of a doctoral dissertation topic, the construction of a research design for its study, the approval of that design, and the preparation of an acceptable doctoral dissertation.

Doctoral work beyond the Master's degree or its equivalent is expected ordinarily to involve a minimum of one year of course work and a minimum of one year of thesis work plus two summers of study. Differences in prior education of candidates and other factors result in many variations in the time required.

A separate catalogue with more complete information about the Doctoral Program, including details on admission, program of study, and special financial assistance for doctoral candidates, may be obtained by writing to the Doctoral Program, Harvard Business School.

M.I.T.

research.

DOCTOR OF PHILOSOPHY

The doctoral program in management is designed for students interested in teaching or other professional management careers. The program is largely an integration of the several fields which can advance the study and practice of management. It accordingly requires familiarity with a broad range of basic management subjects, reflected in a distribution requirement. It also requires specialization in at least one area of managerial application together with one or more of the underlying disciplines.

The doctoral program normally requires somewhat more than three years' work, about two years of course work and another year for the doctoral thesis. The student who already holds the Master's degree can complete the doctorate in a shorter time. Each student's program, to be worked out with a specially designated faculty committee, is subject to four principal requirements: distribution, specialization, general examination, and thesis. In addition, students must fulfill the language requirements specified in Section 3.

Distribution

A student must present evidence of his grasp of the subject areas required in M.I.T.'s program for the Master's degree in Management (see above). This evidence may be presented by M.I.T. graduate subject credit or by examination.

Specialization

The candidate must offer, subject to approval by his advisor, an area of specialization consisting of one applied area of management, two fields of a primary discipline and one other field which may be applied or in the same or another discipline.

Applied Fields	*Disciplines*
Managerial Information and Controls	*Economics*
Management Information Systems	*Macro economics*
Operations Management	*Micro economics*
Labor Economics and Labor Relations	*Behavioral Sciences*
Personnel Administration	*Social Psychology*
Finance	*Individual Psychology*
Marketing	*Sociology*
Industrial Dynamics	*Political Science and Law*
International Business	*Quantitative Studies*
Organization	*Applied Mathematics*
	Statistics
	Operations Research
	Computer Science

General Examination

Upon prospective completion of the program of course work arranged with his advisor, the student takes a general examination in the four fields of his choice as outlined above.

Doctoral Thesis and Special Examination

The doctoral candidate's thesis, written in residence, normally represents a year's research. It must give evidence of the candidate's ability to design and carry out significant scholarly research in his area of specialization. The thesis is defended in an oral examination, which also covers the subject matter of his advanced work as a whole.

Entrance Requirements for Graduate Study

The general admission requirements are those set forth in Section 3 of this Catalogue, with the following additions and exceptions.

Undergraduate preparation for this program should include: mathematics through college algebra and differential calculus; at least one year of an experimental science at the college level; and a subject in principles of economics. An undergraduate subject in elementary psychology is desirable. The Graduate Committee is willing to consider the particular needs of any applicant who is strongly motivated to study in the School and who has demonstrated high intellectual capacity.

Admission Test for Graduate Study in Business

All candidates for admission to graduate study in the Alfred P. Sloan School of Management, other than applicants for the Executive Development Programs (see below), are required to take the Admission Test for Graduate Study in Business. This test is administered by the Educational Testing Service, Princeton, New Jersey; information about dates and locations

UNIVERSITY OF OREGON

Doctoral Program

THE GRADUATE SCHOOL OF MANAGEMENT AND BUSINESS offers a program of advanced graduate study and research leading to the degree of Doctor of Business Administration, for students preparing for careers in college teaching and administration and for responsible research positions in business and government.

Admission. For admission to the doctoral program, the student must (1) satisfy the admission requirements of the Graduate School, (2) have the background of graduate work required for a master's degree in business administration, and (3) show evidence of exceptional academic promise.

Degree Requirements. The requirements for the D.B.A. degree are as follows: (1) completion of a minimum of 63 term hours of work above the level expected for a master's degree in business administration; (2) within these 63 hours, completion of a minimum of 9 term hours of work in each of the following areas: business organization theory and policy; a major functional area of business; statistics and quantitative methods; Advanced Economic Theory (Ec 558, 559, 560); a field of study other than business; (3) submission of a thesis presenting an original and major contribution to an understanding of the thesis subject, for a minimum of 18 term hours of credit (the student must enroll for 3 term hours of thesis in each term the thesis is uncompleted after he has passed his comprehensive examinations, up to a maximum of 36 term hours); (4) examinations, including (a) a qualifying examination at the department's option normally taken during the student's second term of doctoral studies, (b) written comprehensive examinations taken not less than one academic year before the student expects to complete work for the degree, and (c) a final oral defense of the thesis.

Reading knowledge of foreign languages is not required.

Research. Doctoral candidates are expected to become actively engaged in the research program of the school. Opportunities for research experience are provided in connection with projects of individual faculty members, and in the Bureau of Business and Economic Research, Center for International Business Studies, the Forest Industries Management Center, and the Transport and Logistics Research Center.

V. Tables of Earned Doctorates Conferred by American Universities and Colleges, 1861-1966

Earned Doctor's and Master's Degrees in American Universities and Colleges, 1861–1966, by Year and Sex of Recipient

Year	Doctor's Degrees			Master's Degrees		
	Total	Men	Women	Total	Men	Women
rand Total	261,054	231,251	29,803	1,925,865	1,282,822[a]	643,043[a]
61-64[b]	7	7	0	–	–	–
65-69[c]	9	9	0	–	–	–
70-74[d]	67	67	0	2,544	–	–
75-79[e]	161	160	1[f]	3,962	–	–
80	54	51	3	879	–	–
81	37	36	1	922	–	–
82	46	43	3	884	–	–
83	50	50	0	892*	–	–
84	66	65	1	901	–	–
85	77	76	1	1,071	–	–
86	84	80	4	859	–	–
87	77	76	1	923*	–	–
88	140	134	6	987	–	107[g]
89	124	120	4	1,161	–	77[g]
90	149	147	2	1,015	–	96[g]
91	187	180	7	776	–	118[g]
92	190	181	9	730	–	96[g]
93	218	208	10	1,104	–	92[g]
94	279	261	18	1,223	1,013	210
95	272	245	27	1,334	1,124	210
96	271	236	35	1,478	1,213	265
97	319	300	19	1,413	1,163	250
98	324	286	38	1,440	1,188	252
99	345	328	17	1,542	1,275	267
00	382	360	22	1,583	1,280	303
01	365	334	31	1,744	1,405	339
02	293	264	29	1,858	1,464	394
03	337	302	35	1,718	1,385	333
04	334	302	32	1,679	1,340	339
05	369	341	28	1,925	1,538	387
06	383	358	25	1,787	1,366	421
07	349	320	29	1,619	1,215	404
08	391	339	52	1,971	1,511	460
09	451	397	54	2,188	1,713	475
10	443	399	44	2,113	1,555	558
11	497	449	48	2,456	1,821	635
12	500	436	64	3,035	2,215	820
13	538	481	57	3,025	2,021	1,004
14	559	486	73	3,270	2,256	1,014
15	611	549	62	3,577	2,638	939
16	667	586	81	3,906	2,934	972
17	699	626	73*	3,403*	2,370*	1,033*
18	556	491	65	2,900	1,806	1,094
19	395	316	79*	3,590*	2,396*	1,194*
20	615	522	93	4,279	2,985	1,294
21	648	538	110*	5,132*	3,645*	1,487*
22	836	708	128	5,984	4,304	1,680
23	960	817	143*	7,100*	4,910*	2,190*
24	1,098	939	159	8,216	5,515	2,701
25	1,213	1,031	182*	9,118*	6,000*	3,118*
26	1,415	1,217	198	10,019	6,484	3,535
27	1,448*	1,246*	202*	11,052*	7,003*	4,049*
28	1,481	1,274	207	12,086	7,522	4,564
29	1,890*	1,612*	278*	13,358*	8,180*	5,178*
30	2,299	1,951	348	14,629	8,838	5,791
31	2,476*	2,080*	396*	16,999*	10,524*	6,475*
32	2,654	2,209	445	19,369	12,210	7,159
33	2,742*	2,332*	410*	18,831*	11,863*	6,968*
34	2,830	2,456	374	18,293	11,516	6,777
35	2,800*	2,413*	387*	18,298*	11,510*	6,788*
36	2,770	2,370	400	18,302	11,503	6,799
37	2,852*	2,437*	415*	19,982*	12,462*	7,520*
38	2,933	2,503	430	21,662	13,420	8,242
39	3,112*	2,682*	430*	24,196*	14,964*	9,232*
40	3,290	2,861	429	26,731	16,508	10,223
41	3,394*	2,949*	445*	25,690*	15,344*	10,346*
42	3,497	3,036	461	24,648	14,179	10,469
43	2,901*	2,458*	443*	19,031*	9,945*	9,086*
44	2,305	1,880	425	13,414	5,711	7,703
45	2,136*	1,730*	406*	16,312*	7,598*	8,714*
46	1,966	1,580	386	19,209	9,484	9,725
47	2,978*	2,538*	440*	30,813*	19,196*	11,617*
48	3,989	3,496	493	42,417	28,907	13,510
49	5,050	4,528	522	50,827	35,278	15,549

[a] footnotes at end of table.

V. Tables of Earned Doctorates Conferred by American Universities and Colleges, 1861-1966

Earned Doctor's and Master's Degrees in American Universities and Colleges, 1861–1966, by Year and Sex of Recipient

Year	Doctor's Degrees			Master's Degrees		
	Total	Men	Women	Total	Men	Women
rand Total	261,054	231,251	29,803	1,925,865	1,282,822[a]	643,043[a]
61-64[b]	7	7	0	–	–	–
65-69[c]	9	9	0	–	–	–
70-74[d]	67	67	0	2,544	–	–
75-79[e]	161	160	1[f]	3,962	–	–
80	54	51	3	879	–	–
81	37	36	1	922	–	–
82	46	43	3	884	–	–
83	50	50	0	892*	–	–
84	66	65	1	901	–	–
85	77	76	1	1,071	–	–
86	84	80	4	859	–	–
87	77	76	1	923*	–	–
88	140	134	6	987	–	107[g]
89	124	120	4	1,161	–	77[g]
90	149	147	2	1,015	–	96[g]
91	187	180	7	776	–	118[g]
92	190	181	9	730	–	96[g]
93	218	208	10	1,104	–	92[g]
94	279	261	18	1,223	1,013	210
95	272	245	27	1,334	1,124	210
96	271	236	35	1,478	1,213	265
97	319	300	19	1,413	1,163	250
98	324	286	38	1,440	1,188	252
99	345	328	17	1,542	1,275	267
00	382	360	22	1,583	1,280	303
01	365	334	31	1,744	1,405	339
02	293	264	29	1,858	1,464	394
03	337	302	35	1,718	1,385	333
04	334	302	32	1,679	1,340	339
05	369	341	28	1,925	1,538	387
06	383	358	25	1,787	1,366	421
07	349	320	29	1,619	1,215	404
08	391	339	52	1,971	1,511	460
09	451	397	54	2,188	1,713	475
10	443	399	44	2,113	1,555	558
11	497	449	48	2,456	1,821	635
12	500	436	64	3,035	2,215	820
13	538	481	57	3,025	2,021	1,004
14	559	486	73	3,270	2,256	1,014
15	611	549	62	3,577	2,638	939
16	667	586	81	3,906	2,934	972
17	699	626	73*	3,403*	2,370*	1,033*
18	556	491	65	2,900	1,806	1,094
19	395	316	79*	3,590*	2,396*	1,194*
20	615	522	93	4,279	2,985	1,294
21	648	538	110*	5,132*	3,645*	1,487*
22	836	708	128	5,984	4,304	1,680
23	960	817	143*	7,100*	4,910*	2,190*
24	1,098	939	159	8,216	5,515	2,701
25	1,213	1,031	182*	9,118*	6,000*	3,118*
26	1,415	1,217	198	10,019	6,484	3,535
27	1,448*	1,246*	202*	11,052*	7,003*	4,049*
28	1,481	1,274	207	12,086	7,522	4,564
29	1,890*	1,612*	278*	13,358*	8,180*	5,178*
30	2,299	1,951	348	14,629	8,838	5,791
31	2,476*	2,080*	396*	16,939*	10,524*	6,475*
32	2,654	2,209	445	19,369	12,210	7,159
33	2,742*	2,332*	410*	18,831*	11,863*	6,968*
34	2,830	2,456	374	18,293	11,516	6,777
35	2,800*	2,413*	387*	18,298*	11,510*	6,788*
36	2,770	2,370	400	18,302	11,503	6,799
37	2,852*	2,437*	415*	19,982*	12,462*	7,520*
38	2,933	2,503	430	21,662	13,420	8,242
39	3,112*	2,682*	430*	24,196*	14,964*	9,232*
40	3,290	2,861	429	26,731	16,508	10,223
41	3,394*	2,919*	445*	25,690*	15,311*	10,346*
42	3,497	3,036	461	24,648	14,179	10,469
43	2,901*	2,458*	443*	19,031*	9,945*	9,086*
44	2,305	1,880	425	13,414	5,711	7,703
45	2,136*	1,730*	406*	16,312*	7,598*	8,714*
46	1,966	1,580	386	19,209	9,484	9,725
47	2,978*	2,538*	440*	30,813*	19,196*	11,617*
48	3,989	3,496	493	42,417	28,907	13,510
49	5,050	4,528	522	50,827	35,278	15,549

[c] footnotes at end of table.

1. Earned Doctor's and Master's Degrees in American Universities and Colleges, 1861–1966—continued

Year	Doctor's Degrees			Master's Degrees		
	Total	Men	Women	Total	Men	Women
1950	6,633	5,990	643	58,219	41,237	16,982
1951	7,338	6,664	674	65,132	46,231	18,901
1952	7,683	6,969	714	63,471	43,537	19,934
1953	8,309	7,517	792	61,023	40,989	20,034
1954	8,996	8,181	815	56,823	38,147	18,676
1955	8,840	8,014	826	58,201	38,740	19,461
1956	8,903	8,018	885	59,294	39,397	19,897
1957	8,756	7,817	939	61,955	41,332	20,623
1958	8,942	7,978	964	65,614	44,252	21,362
1959	9,360	8,371	989	69,584	47,408	22,176
1960	9,829	8,801	1,028	74,497	50,937	23,560
1961	10,575	9,463	1,112	78,269	54,158	24,111
1962	11,622	10,377	1,245	84,889	58,705	26,184
1963	12,822	11,448	1,374	91,418	62,944	28,474
1964	14,490	12,955	1,535	101,122	69,012	32,110
1965	16,467	14,692	1,775	112,195	76,211	35,984
1966	18,239	16,121	2,118	140,772	93,184	47,588

[a] Sex distribution of recipients of master's degrees estimated as 15,688 men and 3,922 women (including those conferred 1888–1893 by colleges for women only) on basis of proportion of actual distribution for 1894 to 1909.

[b] For 1861, 3; 1862, 1; 1863, 3. All at Yale University.

[c] For 1866, 4; 1867, 1; 1869, 4. All at Yale University.

[d] *Doctors:* For 1870, 1; 1871, 13; 1872, 14; 1873, 26; 1874, 13. *Masters:* For 1872, 794; 1873, 890; 1874, 880.

[e] *Doctors:* For 1875, 23; 1876, 31; 1877, 39; 1878, 32; 1879, 36. *Masters:* For 1875, 661; 1876, 835; 1877, 731; 1878, 816; 1879, 919.

[f] First woman, in 1877, at Boston University.

[g] In colleges for women only.

[h] For years for which only biennial reports were available from the *Biennial Surveys*, data for the missing intermediate years have been interpolated from those for the adjacent years. Had the same method been used to estimate the number of doctor's degrees for the odd-numbered years from 1901 to 1925, for which actual data were available for comparison, the error would have been only 1.7 per cent; had it been used to estimate the number of master's degrees from 1901 to 1915, the error would have been only 1.1 percent. For additional discussion and justification of this process, see Walter C. Eells, *op. cit.*, *Higher Education*. For doctor's degrees from 1917 to 1925, data from college catalogs were used instead of interpolation.

Sources: (1) For 1965–66: *Summary Report on Bachelor's and Higher Degrees Conferred During the Year 1965–66* (U.S. Office of Education); (2) for 1948–1965: *Earned Degrees Conferred by Higher Educational Institutions* (U.S. Office of Education Circulars 247, 262, 282, 333, 360, 380, 418, 461, 499, 527, 570, 636, 687, 719, 721, 777, OE-54013-64, OE-54013-65, 1948–1966); (3) for 1872–1947: *Annual Reports* of United States Commissioner of Education, 1872–1917, and U.S. Office of Education's *Biennial Surveys of Education*, 1916–1946, supplemented by files of college and university catalogs and alumni registers in library of Department of Health, Education, and Welfare; Walter C. Eells, "Earned Doctorates for Women in the Nineteenth Century," *American Association of University Professors Bulletin*, 42: 644–651, Winter 1956; (4) for 1861–1871: *Catalog of Officers and Graduates 1701–1896, Yale University* (New Haven, 1895). For discussion of shortcomings and limitations of these sources, and methods adopted to meet them, see Walter C. Eells, "Earned Doctorates in American Institutions of Higher Education, 1861–1955," *Higher Education*, 12: 109–114, March 1956. The Commissioner of Education first reports master's degrees in 1872, distinguishing those that are honorary and those "in course." Later he states that the master's degree, in course, "usually is conferred three years after graduation on bachelors of arts who are engaged in literary or professional pursuits and who pay to their college a fee prescribed by its regulations." The master's degree in this sense was conferred almost automatically on thousands of college graduates prior to 1872 after it was first provided for at Harvard College in 1643. The provision for something approaching the modern use of the term with a prescribed course of study and examination was initiated at Harvard University in 1869, at Yale University and the University of Pennsylvania in 1876, and at the University of Michigan in 1877. Many other smaller institutions gradually followed the lead of these institutions in the next few years. Columbia University, however, did not fall in line with the new trend until 1881. In Table 1 no effort is made to list from college catalogs the thousands of master's degrees *in course* conferred prior to 1872. This portion of the table, unlike that for doctor's degrees, is based entirely on data published in successive *Annual Reports, Biennial Surveys*, and Circulars of the U.S. Office of Education. For the 1870's the data should be regarded as transitional, including some master's degrees of both types, but there is no easy way to differentiate them. After the 1870's probably most institutions required an examination for master's degrees.

2. Earned Doctorates in American Universities and Colleges, 1926–1966, by Year and Subject

Subject	1963–66 (4 yrs.)						Totals, 1926–1966 (41 yrs.)				
	1966	1965	1964	1963	4-year Totals by Sex		1963–66 (4 yrs.)	1958–62 (5 yrs.)	1948–57 (10 yrs.)	1926–47 (22 yrs.)	Grand Total
					Men	Women					
Grand Total	18,239	16,452	14,479	12,804	56,089	6,795	59,589	59,328	74,497	51,251	233,560
Humanities	2,260	2,011	1,807	1,589	6,327	1,360	7,687	6,629	9,688	9,008	33,012
Architecture	12	10	3	3	26	2	28	29	22	[a]	79
Classical Languages	63	64	49	38	166	48	214	138	276	849	1,477
English	699	689	556	515	1,926	533	2,459	1,989	2,887	2,959	10,294
Fine Arts	72	56	57	40	161	64	225	191	219	284	922
French	80	72	76	55	168	115	283	245	471	768[b]	1,767
German	93	63	75	30	198	63	261	160	349	528	1,298
Journalism	15	17	14	11	50	7	57	34	48	–	139
Music	164	141	159	154	536	82	618	536	569	158	1,881
Philosophy	203	144	137	134	553	65	618	608	859	995	3,080
Religious Education and Bible	49	55	24	37	139	26	165	175	541	[c]	881
Russian	9	9	14	13	34	11	45	46	57	19	167
Spanish	82	65	47	44	158	80	238	183	329	512[b]	1,262
Speech and Dramatic Arts	240	231	205	185	739	123	862	671	1,017	140	2,690
Theology	284	276	282	239	1,017	31	1,081	1,175	1,612	1,395	5,263
Foreign Languages, Other	185	149	108	91	426	107	533	446	432	401	1,812
Biological Sciences	4,036	3,534	3,349	2,948	11,852	1,885	13,767	12,163	18,514	12,115	57,159
Agriculture	537	478	488	408	1,774	37	1,811	1,884	3,584	1,149	8,428
Anatomy	67	79	46	54	208	38	246	179	256	294	975
Bacteriology	242	225	183	191	713	128	841	756	1,066	946	4,209
Biochemistry	315	290	264	212	897	184	1,081	823	1,180	1,054[d]	4,138
Biology	226	180	186	168	611	149	760	668	1,235	–	2,663
Botany	314	304	240	262	1,031	89	1,120	972	1,353	1,800	5,245
Entomology	127	132	99	83	425	16	441	437	545	484	1,907
Forestry	51	51	67	41	209	1	210	187	250	–	647
Home Economics	54	58	41	45	33	165	198	166	295	40	699
Nursing	1	8	1	–	1	9	10	–	13	–	23
Pharmacy	78	69	57	58	252	10	262	273	514	271	1,320
Physiology	129	128	116	80	389	64	453	354	599	1,116	2,522
Psychology	1,046	847	939	844	2,971	705	3,676	3,332	4,677	2,063	13,748
Public Health	54	24	51	34	140	23	163	128	295	209	795
Veterinary Medicine	35	30	24	22	109	2	111	80	92	–	283
Zoology	293	239	217	209	836	122	958	876	1,474	2,002	5,310
Biological Sciences, Other	467	392	330	237	1,283	143	1,426	1,048	1,085	687	4,247
Physical Sciences	6,189	5,705	4,811	4,299	20,310	704	18,719	15,570	22,770	15,862	75,216
Astronomy	40	52	40	28	149	11	160	89	144	169	562
Chemistry	1,571	1,377	1,271	1,219	5,076	362	5,438	5,241	9,351	9,033	29,066
Engineering, Aeronautical	105	91	72	70	334	4	338	169	287	–	–
Engineering, Chemical	354	364	262	238	1,210	8	1,218	836	1,410	–	–
Engineering, Civil	283	252	217	142	888	6	894	471	395	–	–
Engineering, Electrical	569	511	460	386	1,918	8	1,926	1,081	1,057	–	–
Engineering, Mechanical	289	265	200	164	918	–	918	531	611	–	–
Engineering, Other	704	641	482	378	2,194	11	2,205	1,200	1,236	1,011[e]	17,836[e]
Geography	58	70	67	61	236	20	256	283	401	259	1,199
Geology	268	252	211	244	956	19	975	881	1,177	1,140	4,173
Mathematics	782	682	596	490	2,369	181	2,550	1,572	2,006	1,493	7,621
Metallurgy	30	28	13	16	87	–	87	65	315	219	686
Meteorology	26	25	27	17	95	–	95	73	86	31	285
Physics	973	942	778	752	3,383	62	3,445	2,664	4,147	2,474	12,730
Physical Sciences, Other	137	153	115	104	497	12	509	405	144	–	1,058
Social Sciences	5,656	5,061	4,442	3,906	16,261	2,804	19,065	15,736	22,245	14,266	71,312
Anthropology	98	88	85	86	284	73	357	300	376	254	1,295
Business and Commerce	387	321	275	250	1,197	36	1,233	779	870	–	2,882
Economics	586	538	500	434	1,977	81	2,058	1,655	2,254	2,595	8,572
Education	3,063	2,708	2,348	2,075	8,204	1,990	10,194	8,485	11,823	6,181	36,683
History	599	576	507	377	1,840	219	2,059	1,677	2,830	2,667	9,233
International Relations	49	44	47	32	159	13	172	127	181	202	682
Law	29	29	30	29	112	5	117	154	353	213	837
Library Science	19	12	13	17	44	17	61	68	56	61	246
Political Science	336	304	263	228	1,042	89	1,131	993	1,501	999	4,624
Public Administration	29	45	23	29	114	12	126	108	123	–	357
Social Work	64	34	43	40	103	78	181	139	113	–	433
Sociology	244	230	198	208	748	132	880	825	1,329	1,094	4,128
Social Sciences, Other	153	132	110	101	437	59	496	407	436	–	1,339
Miscellaneous	108	111	70	62	309	42	351	230	1,280	–	1,861

[a] Combined with Fine Arts.
[b] Romance Languages as reported for these years divided between French and Spanish in ratio of 3 to 2, based upon doctorates in each language reported 1948–54.
[c] Included in Theology.
[d] Included in Chemistry.
[e] Totals for all branches of Engineering.

Sources: (1) For 1965–66: *Summary Report on Bachelor's and Higher Degrees Conferred During the Year 1965–66* (U.S. Office of Education); (2) for 1948–1965: *Earned Degrees Conferred by Higher Educational Institutions* (U.S. Office of Education Circulars 247, 262, 282, 333, 360, 380, 418, 461, 499, 527, 570, 636, 687, 719, 721, 777, OE-54013-64, 65, 1948–1966); (3) for engineering degrees through 1964–65: *Engineering Enrollment and Degrees* (U.S. Office of Education Circulars 421, 468, 494, 516, 555, 617, 638, 701, OE-54006-62, 63, 64, 65); (4) for 1926–1947: *American Universities and Colleges*, 3rd, 4th, and 5th editions 1936, 1940, and 1948.

APPENDIX 7

8. *Earned Doctorates in the Social Sciences, 1957-1966, by Subject and Institution*

	Institution	Total	Anthropology	Business and Commerce	Economics	Education	History	International Relations	Law	Library Science	Political Science	Public Administration	Social Work	Sociology	Social Sciences, Other
	Total[a]	37,565	715	2,105	4,036	20,212	4,050	328	302	138	2,280	250	338	1,839	972
	Men	32,031	575	2,051	3,884	16,241	3,622	295	291	104	2,121	231	199	1,563	854
	Women	5,534	140	54	152	3,971	428	33	11	34	159	19	139	276	118
	Alabama														
1	Auburn Univ.	80	–	–	–	80	–	–	–	–	–	–	–	–	–
2	Univ. of Alabama	141	–	–	–	115	18	–	–	–	8	–	–	–	–
	Alaska														
3	Univ. of Alaska	62	–	62	–	–	–	–	–	–	–	–	–	–	–
	Arizona														
4	Arizona State Univ.	125	–	–	–	122	–	–	–	–	3	–	–	–	–
5	Univ. of Arizona	113	33	–	1	74	5	–	–	–	–	–	–	–	–
	Arkansas														
6	Univ. of Arkansas	227	–	23	20	184	–	–	–	–	–	–	–	–	–
	California														
7	California Inst. of Tech.	–	–	–	–	–	–	–	–	–	–	–	–	–	–
8	Claremont Graduate School	111	–	–	12	36	11	2	–	–	40	–	–	–	10
9	Occidental Coll.	–	–	–	–	–	–	–	–	–	–	–	–	–	–
10	Pacific School of Religion	–	–	–	–	–	–	–	–	–	–	–	–	–	–
11	San Francisco Theol. Sem.	–	–	–	–	–	–	–	–	–	–	–	–	–	–
12	School of Theol. at Claremont	–	–	–	–	–	–	–	–	–	–	–	–	–	–
13	Stanford Univ.	791	17	69	65	487	80	–	–	–	42	–	–	24	7
14	U.S. Naval Postgraduate School	–	–	–	–	–	–	–	–	–	–	–	–	–	–
15	Univ. of California[b]	1,731	105	105	243	749	283	1	1	2	140	–	8	83	11
16	Berkeley[b]	(842)	(45)	(40)	(148)	(312)	(160)	–	(1)	(2)	(76)	–	(8)	(42)	(8)
17	Davis[b]	–	–	–	–	–	–	–	–	–	–	–	–	–	–
18	Los Angeles[b]	(513)	(44)	(62)	(24)	(286)	(38)	–	–	–	(30)	–	–	(27)	(2)
19	Riverside[b]	(1)	–	–	–	–	(1)	–	–	–	–	–	–	–	–
20	San Diego[b]	–	–	–	–	–	–	–	–	–	–	–	–	–	–
21	San Francisco Med. Ctr.[b]	–	–	–	–	–	–	–	–	–	–	–	–	–	–
22	Santa Barbara	(9)	–	–	–	–	(6)	–	–	–	(2)	–	–	(1)	–
23	Univ. of the Pacific	42	–	–	–	26	–	–	–	–	–	–	–	–	16
24	Univ. of Southern California	875	–	37	60	566	58	–	–	–	23	60	21	48	2
	Colorado														
25	Colorado School of Mines	–	–	–	–	–	–	–	–	–	–	–	–	–	–
26	Colorado State Coll.	520	–	–	–	518	–	–	–	–	–	–	–	–	2
27	Colorado State Univ.	32	–	–	–	32	–	–	–	–	–	–	–	–	–
28	Iliff School of Theol.	–	–	–	–	–	–	–	–	–	–	–	–	–	–
29	Univ. of Colorado	352	4	14	46	208	42	–	–	–	20	–	–	18	–
30	Univ. of Denver	197	–	–	–	174	9	14	–	–	–	–	–	–	–
	Connecticut														
31	Hartford Sem. Foundation	6	2	–	–	–	1	–	–	–	–	–	–	1	2
32	Univ. of Connecticut	223	–	–	–	217	–	–	–	–	1	–	–	4	1
33	Yale Univ.	507	24	–	94	20	115	41	70	–	64	–	–	42	37
	Delaware														
34	Univ. of Delaware	6	–	–	–	2	4	–	–	–	–	–	–	–	–
	District of Columbia														
35	American Univ.	308	–	14	54	34	29	83	–	–	21	47	–	19	7
36	Catholic Univ. of America	285	8	–	9	148	54	–	–	–	5	–	24	37	–
37	George Washington Univ.	147	–	26	11	71	11	–	17	–	9	1	–	–	1
38	Georgetown Univ.	175	–	–	31	–	61	–	9	–	68	–	–	–	6
39	Howard Univ.	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	Florida														
40	Florida State Univ.	273	–	1	–	213	19	–	–	–	8	–	11	18	3
41	Univ. of Florida	318	–	11	151	189	28	–	–	–	23	–	–	6	10
42	Univ. of Miami	19	–	–	–	19	–	–	–	–	–	–	–	–	–
	Georgia														
43	Emory Univ.	49	1	–	–	–	28	–	–	–	12	–	–	8	–
44	Georgia Inst. of Tech.	–	–	–	–	–	–	–	–	–	–	–	–	–	–
45	Univ. of Georgia	124	–	–	2	89	30	–	–	–	3	–	–	–	–
	Hawaii														
46	Univ. of Hawaii	4	–	–	1	–	3	–	–	–	–	–	–	–	–
	Idaho														
47	Univ. of Idaho	20	–	–	–	17	2	–	–	–	1	–	–	–	–
	Illinois														
48	Illinois Inst. of Tech.	3	–	3	–	–	–	–	–	–	–	–	–	–	–
49	Loyola Univ.	92	–	–	–	73	14	–	–	–	–	–	–	5	–
50	Lutheran School of Theol.	–	–	–	–	–	–	–	–	–	–	–	–	–	–
51	Northern Illinois Univ.	12	–	–	–	12	–	–	–	–	–	–	–	–	–
52	Northwestern Univ.	384	26	36	32	153	62	–	4	–	48	–	–	23	–
53	Southern Illinois Univ.	79	1	–	1	61	–	–	–	–	15	–	–	1	–
54	Univ. of Chicago	1,077	83	55	131	250	137	32	8	20	122	4	30	122	83
55	Univ. of Illinois	938	1	142	148	435	82	–	6	29	54	–	–	41	–
	Indiana														
56	Ball State Univ.	32	–	–	–	24	3	–	–	–	1	–	–	–	5
57	Indiana Univ.	1,504	23	162	71	1,038	92	–	–	1	76	12	–	25	4
58	Purdue Univ.	296	–	5	118	141	–	–	–	–	–	–	–	27	5
59	St. Mary's Coll.	–	–	–	–	–	–	–	–	–	–	–	–	–	–
60	Univ. of Notre Dame	101	–	–	10	26	24	–	10	–	8	–	–	20	3
	Iowa														
61	Iowa State Univ.	200	–	–	131	40	–	–	–	–	3	–	–	21	5
62	Univ. of Iowa	587	–	31	28	420	55	–	–	–	23	–	–	30	–

See footnotes at end of table.

8. Earned Doctorates in the Social Sciences, 1957–1966—continued

	Institution	Total	Anthropology	Business and Commerce	Economics	Education	History	International Relations	Law	Library Science	Political Science	Public Administration	Social Work	Sociology	Social Sciences, Other
	Kansas														
63	Kansas State Univ.	10	–	–	10	–	–	–	–	–	–	–	–	–	–
64	Univ. of Kansas	259	–	–	11	216	17	–	–	–	12	–	–	3	–
	Kentucky														
65	Southern Baptist Theol. Sem.	–	–	–	–	–	–	–	–	–	–	–	–	–	–
66	Univ. of Kentucky	159	–	–	25	78	22	–	–	–	12	–	–	16	6
67	Univ. of Louisville	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	Louisiana														
68	Louisiana State Univ.	208	–	49	34	78	21	–	–	–	1	–	–	25	–
69	New Orleans Baptist Theol. Sem.	–	–	–	–	–	–	–	–	–	–	–	–	–	–
70	Tulane Univ.	79	3	–	22	–	30	–	–	–	11	–	4	9	–
	Maine														
71	Univ. of Maine	3	–	–	–	–	3	–	–	–	–	–	–	–	–
	Maryland														
72	Johns Hopkins Univ.	174	2	–	44	23	54	15	–	–	23	–	–	3	10
73	Peabody Conservatory of Music	2	–	–	–	2	–	–	–	–	–	–	–	–	–
74	Univ. of Maryland	300	–	1	24	199	26	1	–	–	26	–	–	20	3
75	Woodstock Coll.	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	Massachusetts														
76	Boston Coll.	63	–	–	12	43	8	–	–	–	–	–	–	–	–
77	Boston Univ.	385	–	–	7	306	46	–	–	–	10	–	–	13	3
78	Brandeis Univ.	75	3	–	–	–	13	–	–	–	–	–	28	2	29
79	Clark Univ.	37	–	–	20	2	13	2	–	–	–	–	–	–	–
80	Harvard Univ.	1,591	88	186	252	366	338	–	44	–	162	11	–	90	54
81	Lowell Tech. Inst.	–	–	–	–	–	–	–	–	–	–	–	–	–	–
82	Massachusetts Coll. of Pharmacy	–	–	–	–	–	–	–	–	–	–	–	–	–	–
83	Massachusetts Inst. of Tech.	146	–	49	70	–	–	–	–	–	22	5	–	–	–
84	Northeastern Univ.	–	–	–	–	–	–	–	–	–	–	–	–	–	–
85	Springfield Coll.	38	–	–	–	38	–	–	–	–	–	–	–	–	–
86	Tufts Univ.	80	–	–	–	–	–	80	–	–	–	–	–	–	–
87	Univ. of Massachusetts	17	–	–	5	3	1	–	–	–	4	–	–	4	–
88	Worcester Polytechnic Inst.	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	Michigan														
89	Michigan State Univ.	837	4	70	111	538	18	–	–	–	23	–	–	62	11
90	Univ. of Michigan	872	38	68	77	370	76	–	26	45	78	–	7	55	32
91	Wayne State Univ.	333	–	–	12	295	5	–	–	–	–	–	–	21	–
	Minnesota														
92	Univ. of Minnesota	788	5	45	112	318	88	3	–	–	74	–	21	62	60
	Mississippi														
	Mississippi State Univ.	19	–	–	–	14	–	–	–	–	–	–	–	5	–
	Univ. of Mississippi	59	–	4	3	51	1	–	–	–	–	–	–	–	–
95	Univ. of Southern Mississippi	37	–	–	–	37	–	–	–	–	–	–	–	–	–
	Missouri														
96	Concordia Sem.	–	–	–	–	–	–	–	–	–	–	–	–	–	–
97	St. Louis Univ.	148	–	17	5	63	33	–	1	–	9	–	–	20	–
98	Univ. of Missouri	458	–	5	37	337	39	–	–	–	13	–	–	25	2
99	Washington Univ.	119	–	15	8	48	3	–	–	–	13	–	17	15	–
	Montana														
100	Montana State Univ.	30	–	–	13	17	–	–	–	–	–	–	–	–	–
101	Univ. of Montana	15	–	–	–	15	–	–	–	–	–	–	–	–	–
	Nebraska														
102	Univ. of Nebraska	449	–	17	21	356	31	–	–	–	11	–	–	13	–
	Nevada														
103	Univ. of Nevada	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	New Hampshire														
104	Dartmouth Coll.	–	–	–	–	–	–	–	–	–	–	–	–	–	–
105	Univ. of New Hampshire	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	New Jersey														
106	Drew Univ.	1	–	–	–	–	1	–	–	–	–	–	–	–	–
107	Newark Coll. of Engineering	–	–	–	–	–	–	–	–	–	–	–	–	–	–
108	Princeton Theol. Sem.	–	–	–	–	–	–	–	–	–	–	–	–	–	–
109	Princeton Univ.	305	4	–	81	–	71	–	–	–	100	–	–	25	24
110	Rutgers—The State Univ.	254	–	–	23	183	15	–	–	16	17	–	–	–	–
111	Seton Hall Univ.	–	–	–	–	–	–	–	–	–	–	–	–	–	–
112	Stevens Inst. of Tech.	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	New Mexico														
113	New Mexico State Univ.	–	–	–	–	–	–	–	–	–	–	–	–	–	–
114	Univ. of New Mexico	85	6	–	–	40	28	–	–	–	–	–	–	–	11
	New York														
115	Adelphi Univ.	–	–	–	–	–	–	–	–	–	–	–	–	–	–
116	Alfred Univ.	–	–	–	–	–	–	–	–	–	–	–	–	–	–
117	City Univ.	–	–	–	–	–	–	–	–	–	–	–	–	–	–
118	Clarkson Coll. of Tech.	–	–	–	–	–	–	–	–	–	–	–	–	–	–
119	Columbia Univ.	3,041	78	93	193	1,909	310	–	17	16	217	–	73	118	17
120	Cornell Univ.[6]	571	33	23	83	216	56	5	10	–	24	10	–	71	40
121	Fordham Univ.	240	–	–	13	149	49	–	–	–	19	–	–	10	–
122	General Theol. Sem.	–	–	–	–	–	–	–	–	–	–	–	–	–	–
123	Jewish Theol. Sem. of America	–	–	–	–	–	–	–	–	–	–	–	–	–	–
124	New School for Social Research	81	–	–	37	–	–	–	–	–	12	–	–	32	–
125	New York Law School	23	–	–	–	–	–	–	23	–	–	–	–	–	–

See footnotes at end of table.

8. *Earned Doctorates in the Social Sciences, 1957–1966 – continued*

	Institution	Total	Anthropology	Business and Commerce	Economics	Education	History	International Relations	Law	Library Science	Political Science	Public Administration	Social Work	Sociology	Social Sciences, Other
126.	New York Univ.	1,567	4	134	71	922	72	–	29	–	89	73	1	60	112
127	Polytechnic Inst. of Brooklyn	–	–	–	–	–	–	–	–	–	–	–	–	–	–
128	Rensselaer Polytechnic Inst.	9	–	5	–	–	–	–	–	–	–	–	–	–	4
129	Rockefeller Univ.	–	–	–	–	–	–	–	–	–	–	–	–	–	–
130	St. Bonaventure Univ.	–	–	–	–	–	–	–	–	–	–	–	–	–	–
131	St. John's Univ.	90	–	–	–	48	30	–	–	–	7	–	–	3	2
132	SUNY—All Schools[d]	(375)	(3)	(3)	(60)	(216)	(5)	–	–	–	(2)	(1)	–	(50)	(35)
133	Albany	16	–	–	–	13	–	–	–	–	2	1	–	–	1
134	Buffalo	170	3	6	4	137	6	–	–	–	–	–	–	10	4
135	Coll. of Forestry	8	–	–	8	–	–	–	–	–	–	–	–	–	–
136	Downstate Med. Ctr.	–	–	–	–	–	–	–	–	–	–	–	–	–	–
137	Upstate Med. Ctr.	–	–	–	–	–	–	–	–	–	–	–	–	–	–
138	Syracuse Univ.	385	6	1	37	163	21	4	–	–	38	11	–	7	97
139	Union Coll. and Univ.	–	–	–	–	–	–	–	–	–	–	–	–	–	–
140	Union Theol. Sem.	–	–	–	–	–	–	–	–	–	–	–	–	–	–
141	Univ. of Rochester	74	–	–	9	25	39	–	–	–	–	–	–	1	–
142	Yeshiva Univ.	75	–	–	–	66	6	–	–	–	–	–	–	–	3
	North Carolina														
143	Duke Univ.	278	–	–	55	79	86	–	–	–	44	–	–	14	–
144	North Carolina State at Raleigh	49	–	–	48	–	–	–	–	–	–	–	–	1	–
145	Univ. of North Carolina	389	5	22	37	134	85	–	–	–	50	1	–	54	1
	North Dakota														
146	North Dakota State Univ.	–	–	–	–	–	–	–	–	–	–	–	–	–	–
147	Univ. of North Dakota	98	–	–	–	96	2	–	–	–	–	–	–	–	–
	Ohio														
148	Bowling Green State Univ.	–	–	–	–	–	–	–	–	–	–	–	–	–	–
149	Case Inst. of Tech.[e]	37	–	37	–	–	–	–	–	–	–	–	–	–	–
150	Hebrew Union Coll.—Jewish Inst.	–	–	–	–	–	–	–	–	–	–	–	–	–	–
151	Kent State Univ.	16	–	–	–	16	–	–	–	–	–	–	–	–	–
152	Ohio State Univ.	940	4	121	139	501	67	–	–	–	30	–	8	70	–
153	Ohio Univ.	24	–	1	–	23	–	–	–	–	–	–	–	–	–
154	Univ. of Akron	–	–	–	–	–	–	–	–	–	–	–	–	–	–
155	Univ. of Cincinnati	56	–	–	11	39	3	–	–	–	3	–	–	–	–
156	Univ. of Toledo	11	–	–	–	11	–	–	–	–	–	–	–	–	–
157	Western Reserve Univ.[e]	313	–	–	14	210	43	–	–	8	1	–	26	2	9
	Oklahoma														
158	Oklahoma State Univ.	196	–	–	41	155	–	–	–	–	–	–	–	–	–
159	Univ. of Oklahoma	340	–	14	20	237	42	–	–	–	19	–	–	–	8
160	Univ. of Tulsa	48	–	–	–	48	–	–	–	–	–	–	–	–	–
	Oregon														
	Oregon State Univ.	95	–	–	24	48	–	–	–	–	–	–	–	23	–
	Univ. of Oregon	427	18	14	27	321	28	–	–	–	19	–	–	–	–
163	Univ. of Portland	26	–	–	–	26	–	–	–	–	–	–	–	–	–
	Pennsylvania														
164	Bryn Mawr Coll.	35	1	–	4	4	14	–	–	–	6	–	6	–	–
165	Carnegie Inst. of Tech.[f]	42	–	23	19	–	–	–	–	–	–	–	–	–	–
166	Dropsie Coll.	26	2	–	–	13	4	–	–	–	–	–	–	–	7
167	Duquesne Univ.	–	–	–	–	–	–	–	–	–	–	–	–	–	–
168	Hahnemann Med. Coll.	–	–	–	–	–	–	–	–	–	–	–	–	–	–
169	Jefferson Med. Coll. of Phila.	–	–	–	–	–	–	–	–	–	–	–	–	–	–
170	Lehigh Univ.	15	–	–	–	10	5	–	–	–	–	–	–	–	–
171	Pennsylvania State Univ.	577	–	5	39	464	12	–	–	–	14	–	–	22	21
172	Phila. Coll. of Pharm. and Sci.	–	–	–	–	–	–	–	–	–	–	–	–	–	–
173	Temple Univ.	177	–	–	–	177	–	–	–	–	–	–	–	–	–
174	Univ. of Pennsylvania	657	34	–	149	121	97	18	5	–	39	12	44	33	105
175	Univ. of Pittsburgh	420	2	17	47	203	23	2	–	–	15	2	5	14	–
176	Westminster Theol. Sem.	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	Rhode Island														
177	Brown Univ.	79	–	–	21	–	15	–	–	–	10	–	–	13	20
178	Univ. of Rhode Island	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	South Carolina														
179	Clemson Univ.	1	–	–	1	–	–	–	–	–	–	–	–	–	–
180	Medical Coll. of South Carolina	–	–	–	–	–	–	–	–	–	–	–	–	–	–
181	Univ. of South Carolina	32	–	–	–	17	15	–	–	–	–	–	–	–	–
	South Dakota														
182	South Dakota State Univ.	5	–	–	4	–	–	–	–	–	–	–	–	–	1
183	Univ. of South Dakota	31	–	–	–	31	–	–	–	–	–	–	–	–	–
	Tennessee														
184	George Peabody Coll. for Teachers	305	–	–	–	280	21	–	–	1	–	–	–	–	3
185	Univ. of Tennessee	195	–	–	4	179	3	–	–	–	1	–	–	8	–
186	Vanderbilt Univ.	85	–	–	28	–	35	–	–	–	10	–	–	12	–
	Texas														
187	Baylor Univ.	22	–	–	–	21	1	–	–	–	–	–	–	–	–
188	East Texas State Univ.	12	–	–	–	12	–	–	–	–	–	–	–	–	–
189	North Texas State Univ.	134	–	–	–	134	–	–	–	–	–	–	–	–	–
190	Rice Univ.	17	–	–	5	–	11	–	–	–	–	–	–	–	1
191	Southern Methodist Univ.	9	–	–	9	–	–	–	–	–	–	–	–	–	–
192	Southwestern Baptist Theol. Sem.	–	–	–	–	–	–	–	–	–	–	–	–	–	–
193	Texas A&M Univ.	31	–	–	20	11	–	–	–	–	–	–	–	–	–
194	Texas Christian Univ.	–	–	–	–	–	–	–	–	–	–	–	–	–	–
195	Texas Tech. Coll.	74	–	–	–	61	11	–	–	–	–	–	–	–	2
196	Texas Woman's Univ.	32	–	–	–	32	–	–	–	–	–	–	–	–	–
197	Univ. of Houston	132	–	1	3	128	–	–	–	–	–	–	–	–	–

See footnotes at end of table.

8. Earned Doctorates in the Social Sciences, 1957–1966—continued

	Institution	Total	Anthropology	Business and Commerce	Economics	Education	History	International Relations	Law	Library Science	Political Science	Public Administration	Social Work	Sociology	Social Sciences, Other
198	Univ. of Texas	634	1	117	51	322	70	–	–	–	30	–	–	22	21
	Utah														
199	Brigham Young Univ.	49	–	–	–	48	1	–	–	–	–	–	–	–	–
200	Univ. of Utah	134	3	2	4	105	5	–	–	–	8	–	–	7	–
201	Utah State Univ.	30	–	–	–	26	–	–	–	–	–	–	–	2	2
	Vermont														
202	Middlebury Coll.	–	–	–	–	–	–	–	–	–	–	–	–	–	–
203	Univ. of Vermont	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	Virginia														
204	Medical Coll. of Virginia	–	–	–	–	–	–	–	–	–	–	–	–	–	–
205	Union Theol. Sem.	–	–	–	–	–	–	–	–	–	–	–	–	–	–
206	Univ. of Virginia	243	–	–	55	92	55	21	3	–	15	–	–	–	2
207	Virginia Polytechnic Inst.	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	Washington														
208	Univ. of Washington	365	14	85	39	76	63	–	–	–	36	–	1	42	9
209	Washington State Univ.	162	–	–	6	129	6	–	–	–	–	–	–	18	3
	West Virginia														
210	West Virginia Univ.	33	–	–	–	26	7	–	–	–	–	–	–	–	–
	Wisconsin														
211	Lawrence Coll., Inst of Paper Chem.	–	–	–	–	–	–	–	–	–	–	–	–	–	–
212	Marquette Univ.	1	–	–	–	1	–	–	–	–	–	–	–	–	–
213	Univ. of Wisconsin	1,091	18	63	224	445	200	1	14	–	53	–	–	52	21
	Wyoming														
214	Univ. of Wyoming	158	–	1	–	157	–	–	–	–	–	–	–	–	–

[a] Number of doctorates awarded by all institutions, not just those appearing in this table. See footnote (a) of Table 3.

[b] Degrees granted by separate campuses were listed separately beginning in 1960. University of California figure is for 10 years; separate campus figures are for 7 years.

[c] Includes the four SUNY contract colleges.

[d] Discrepancy exists between SUNY total and the sum of the components listed because (1) total includes estimates for Alfred and Cornell contract colleges and (2) University of Buffalo did not become a part of SUNY system until 1963 so doctorates awarded prior to that time are not included in the SUNY total.

[e] Now a part of Case Western Reserve University.

[f] Now a part of Carnegie-Mellon University.

APPENDIX 9

HARVARD UNIVERSITY

The Advanced Management Program

The Advanced Management Program is designed for executives who have reached or closely approached the general policy-making management level of their organizations. It is an intensive 13-week program aimed at enhancing their competence for top-level positions by helping them develop:

(1) broader comprehension of the economic, political, social, and technical environments in which their organizations operate;

(2) greater competence in devising realistic long-range plans effectively geared to rapidly evolving trends;

(3) increased understanding of the processes and procedures whereby the various functional aspects of a modern organization can be integrated into an effective, dynamic whole;

(4) greater perception and knowledge of the human aspects of organization;

(5) a reinforced foundation for their own continuing education during the two decades of increasing responsibility which typically lie before them;

(6) further understanding of the managers' responsibility toward their society and environment — the company, community, national government, and international interests.

Candidates are nominated and sponsored by their respective companies and organizations, which assume the responsibility for tuition, expenses, and continued salary of participants during the program. Candidates should be between their early forties and middle fifties, with 15 to 20 years of business experience. They should occupy top-level, policy-making management positions or have promise of advancement to such positions in the foreseeable future. There are no formal educational requirements, but successful business experience, high intellectual capacity, and enthusiasm for the program are important.

The course content includes work in the areas of corporate strategy and business policy, financial analysis, accounting policy, marketing, labor relations, human behavior in organizations, and international business and the relationship of business to the world society. Teaching materials are international in scope.

There are two sessions each year: the first running from the middle of September to early in December, and the second running from late in February to the latter part of May. Each session is limited to approximately 160 participants.

A separate catalogue with complete information about this program may be obtained by writing to the Advanced Management Program, Harvard Business School.

HARVARD UNIVERSITY

The Program for Management Development

The Program for Management Development is designed for promising young managers, between thirty and forty, from all over the world, who have not had the M.B.A. experience, who are currently filling responsible positions at the operating level, and who have demonstrated by their performances that they are potential top-echelon executives. This 16-week course is operationally oriented, intended to equip participants to handle their day-to-day assignments better and to prepare them to assume increasing responsibility in the years ahead, recognizing that profits earned by efficiency and imagination are the mainspring of economic growth.

The program trains participants in modern management skills, techniques, processes, and concepts. It is designed to broaden their business and community outlook and to penetrate the functional barriers that limit vision by providing younger managers, who usually have earned their spurs in one functional area, with a working knowledge of, and respect for, all the basics of business, such as marketing, production, finance, human relations, statistics, and control. The program is devised to enable the young executive to appreciate, by means of intensive educational experience and association, the critical interrelations of the component parts of any enterprise to its profitable operation and to help each participant recognize the meaning of other operations and functions to his own area of responsibility, all in a widening world of international business. It is, in effect, a bridge of practical yet broad-gauged learning preparing younger managers of high potential to make the transition to full use of their talents ably and quickly in response to new challenges and responsibilities.

The program includes basic courses in general management, including marketing, logistics, and business policy; finance; quantitative analysis; human behavior in organizations; labor relations; and issues in business, including national and international problems.

A separate catalogue providing additional information may be obtained by writing to the Program for Management Development, Harvard Business School.

M.I.T.

EXECUTIVE DEVELOPMENT PROGRAMS IN MANAGEMENT

The Alfred P. Sloan School of Management provides two programs for business executives who wish to extend their knowledge of the fundamentals underlying effective management. Applicants for these programs are nominated by their companies and selected by M.I.T.

The *Alfred P. Sloan Program* enrolls exceptionally able young executives (32 to 38 years of age) who have demonstrated potential for filling positions of senior responsibility in the future. These young executives are sponsored by industry, government, and other organizations (or they may apply independently); a limited number of men are selected from abroad. The 12-month Program provides for regular classroom work plus intimate contact with business and government leaders here and abroad. It is taken in conjunction with the regular graduate program and may lead to the degree of Master of Science in Management. Approximately 45 men are admitted each year, and they are divided into two or three groups for most of their course work.

The *Program for Senior Executives* is an intensive nine-week course of study designed for the mature executive already in or preparing for a position of major managerial responsibility. Enrollment is limited to 25 qualified executives in each of the two nine-week sessions held in the spring and fall each year.

Participants reside at Endicott House in Dedham, where they enjoy the quiet and graceful environment of a private estate furnished tastefully and comfortably. The regular classroom work is conducted at the Sloan Building, 50 Memorial Drive.

Information about these programs may be obtained by writing to the Associate Dean for Executive Programs.

University of Michigan Official Publication

APPENDIX 10

Horace H. Rackham School of Graduate Studies

1966-1967

Announcement

Published by the University Ann Arbor

Public Administration

(Institute of Public Administration)

Requirements for the Master of Public Administration Degree

The applicant for enrollment in the Institute of Public Administration must comply with the general requirements of the Graduate School as well as with the special requirements of the Institute. For specific courses, consult the offering of the particular departments in this *Announcement*. Special attention is called to courses in business administration, city planning, civil engineering, economics, education, journalism, landscape architecture, land utilization, law, natural resources, political science, psychology, public health, social work, and sociology.

The candidate for the Master of Public Administration degree should consult the special *Announcement* of the Institute of Public Administration. The program of the candidate for this degree must be worked out in conformity with the requirements set forth in the special *Announcement* and must be approved by the Director of the Institute. Normally, thirty-six hours of graduate work will be required for the degree, including the time spent in internship, field work, or research under supervision. The Director of the Institute is Professor Ferrel Heady, 1516 Rackham Building.

Opportunities for further work beyond the master's degree are available in the doctoral program in political science.

Institute Program

The program of instruction in the Institute is flexible, aimed at meeting the needs of the individual student. The course work is designed to provide not only the theoretical background but also to give the student considerable personal contact with operating officials. Some training is provided in research and other techniques. In addition, student activities furnish a means of augmenting classroom instruction and of providing the day-to-day stimulation which adds immeasurably to university experience.

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No fixed curriculum is prescribed for all students enrolled in the Institute. The four graduate seminars in administration (Political Science 631, 632, 633, and 635), however, are basic to the Institute training, and it is anticipated that all students will have this material. Aside from this, each student's course of study will depend upon his earlier preparation, his particular field of interest, and the requirements of government employment.

Among the courses taken by public administration students are the following:

Basic Courses in Public Administration

Political Science

630. Research Problems in Public Administration. I. *(2)*.
631. Proseminar in Adminstrative Organization and Organizational Behavior. I. *(3)* Friedman.
632. Proseminar in Fiscal Administration. II. *(3)* Pealy.
633. Proseminar in Public Personnel Administration. II. *(3)* Heady.
635. Proseminar in Public Administration and Public Policy. I. *(3)* Rehmus.

Other Courses in Government: Journalism 407 and 408; Political Science 411, 413, 414, 415, 417, 421, 422, 423, 424, 426, 431, 434, 436, 483, 486, 487, 611, 613, 621, 623, 624, 625, 634, 636, 639, 681, 700, 711, 713, 720, 723, 731, 732, 786, 834, 835, 836, 891, and 892.

Public Finance: Economics 451, 452, 481, 482, 683, 685, and 686.

Labor, Social Security, Public Welfare, Industry: Business Administration 511; Economics 421, 422, 423, 430, 431, 432, 433, 522, 523, 635, and 636; Social Work 502, 504, 600, 897, and 898; Sociology 454 and 460.

Planning and Housing: City Planning 436, 513, 623, 703, 712, and 713; Economics 557; Sociology 430, 435, and 635.

Personnel Administration: Industrial Relations 500, 561, and 652; Psychology 420, 563, 564, 565, 663, 762, 763, 865, and 866.

Techniques: Biostatistics 500, 509, 510, 530, 600, 601, and 620; Business Administration 443, 450, 451, 491, and 500; Journalism 410 and 443; Sociology 410, 511, 610, 612, 614, 650, and 760.

Natural Resources: Conservation 478, 489, 490, 491, 587, 588, 590, and 591; *see also* Interdepartmental Seminars; Economics 435; Forestry 476 and 480.

Engineering: Civil Engineering (Highway) 370*, 480, 481, 501, 531, 532, 550, 552, 570, 571, 572, 670, 671, 672, 674, and 780; Civil Engineering (Sanitary) 581, 583, 584, and 585.

Law: 703, 734, 747, 748, 758, 760, 778, 781, 790, and 796.

Interdepartmental Seminars

Public problems confronting administrators often call for information from, and training in, many academic disciplines. Recognizing this and other values inherent in integration and co-operation, the Institute of Public Administration encourages interdepartmental seminars. See the *Announcement* of the Institute of Public Administration.

* Undergraduate course for which graduate credit will be given in exceptional cases.

713, 723. Seminar in Land Utilization and Regional Planning. *Permission of committee.* 713, I; 723, II. *(2–3 each).*

835, 836. Seminar in the Metropolitan Community. *Permission of the Executive Committee.* 835, I; 836, II. *(3 each).*

Programs in Natural Resources Administration

Applicants for admission to the program must meet the requirements for admission to the Graduate School. The degree requires the satisfactory completion of thirty-six hours of graduate work. See the *Announcement* of the Institute of Public Administration.

Nine Hours in Public Administration

Required

Pol. Sci. 631. Proseminar in Administrative Organization and Organizational Behavior. I. *(3)* Friedman.

Elect two of the following:

Pol. Sci. 632. Proseminar in Fiscal Administration. II. *(3)* Pealy.
Pol. Sci. 633. Proseminar in Public Personnel Administration. II. *(3)* Heady.
Pol. Sci. 634. Proseminar in Comparative Public Administration. II. *(3)* Grassmuck.
Pol. Sci. 635. Proseminar in Public Administration and Public Policy. I. *(3)* Rehmus.
Pol. Sci. 636. Proseminar in Program Administration. II. *(3)* Gable.

Twelve Hours in Conservation

To be elected from the following:

Cons. 471, 472. Economic Foundations of Resource Policy.
Cons. 478. Natural Resources Economics.
Cons. 490. International Resources Development.
Cons. 491. Natural Resource Policy.
Cons. 566. Water Resources Policy.
Cons. 581. Resource Use and Planning Seminar.
Cons. 588. Resources Allocation and Planning.
Cons. 590. Regional Development.
Cons. 591, 592. Economic Problems of Natural Resources Administration.
Cons. 697. Problems and Research in Conservation.

Six Hours in Practicum: Conservation 731 and 732 (Political Science 637 and 638).

Nine Hours in Electives: Elective courses related to natural resources administration, subject to the approval of the Chairman of the Department of Conservation in consultation with the Director of the Institute of Public Administration.

Public Health

For students who intend to engage in the activities of official or voluntary health and medical care agencies (including those in industry), the School of Public Health offers programs of study leading to professional degrees in public health. Students interested in these professional degree programs should consult the *Announcement* of the School of Public Health.

Programs of study in the Graduate School related to public health and lead-

PRINCETON UNIVERSITY

THE GRADUATE SCHOOL ANNOUNCEMENT

1961 · 1962

Published by the University
Princeton, New Jersey

WOODROW WILSON SCHOOL OF PUBLIC AND INTERNATIONAL AFFAIRS

GARDNER PATTERSON, *Director*

Professors: W. J. BAUMOL (*Economics*), W. M. BEANEY (*Politics*), M. H. BERNSTEIN (*Politics*), J. BLUM (*History*), L. V. CHANDLER§ (*Economics*), K. KNORR (*Economics*), M. J. LEVY, JR. (*Sociology and Anthropology*), W. W. LOCKWOOD* (*Politics; Public and International Affairs*), R. A. MUSGRAVE† (*Economics; Public and International Affairs*), G. PATTERSON (*Economics*), H. STEIN§ (*Public and International Affairs*).

Associate Professors: R. E. KUENNE§ (*Economics*), R. A. LIVELY (*History*), J. W. SMITH§ (*Philosophy*), S. J. STEIN (*History*).

Assistant Professors: S. T. BEZA (*Economics*), W. D. CARMICHAEL† (*Economics*), S. KELLEY, JR.§ (*Politics*), S. LIVERMORE (*History*).

Lecturer: R. W. VAN DE VELDE (*Public and International Affairs*), *Executive Secretary of the School.*

Visiting Lecturers: L. FISCHER (*Public and International Affairs*); F. PERKINS (*Public and International Affairs*).

FACULTY COMMITTEE

G. PATTERSON, *Chairman*; W. M. BEANEY, M. H. BERNSTEIN, J. BLUM, W. D. CARMICHAEL, A. J. COALE, K. KNORR, R. A. LESTER, M. J. LEVY, JR., R. A. LIVELY, W. W. LOCKWOOD, H. STEIN, R. W. VAN DE VELDE, *Secretary*.

The Woodrow Wilson School is Princeton's memorial to its distinguished alumnus who was President of the University and President of the United States. The purpose of both its graduate and undergraduate programs is to carry forward Woodrow Wilson's interest in preparing men for leadership in public affairs.

The School is a cooperative enterprise of the Departments of Economics, History, Politics, and Sociology and Anthropology. It offers training in the interrelated disciplines of the social sciences with an emphasis on applying their knowledge and techniques to the solution of public problems. An important source of strength is the ability of the School to draw upon the faculties of all the social science departments.

† Absent on leave, first term, 1961-1962.
* Absent on leave, second term, 1961-1962.
§ Absent on leave, 1961-1962.

Associated with the School are certain major research activities of the University. These, the Office of Population Research and the Center of International Studies, are briefly described on later pages. A brief description of the Parvin Fellows Program also appears below. Two other functions of the School, one in the field of scholarship and one in that of public service, deserve mention. *The Public Opinion Quarterly* is administratively under the School's direction, as is the conduct of the Rockefeller Public Service Awards program.

The graduate program of the Woodrow Wilson School of Public and International Affairs provides preparation for careers in public affairs in both the domestic and international fields. Almost all of the Public Affairs courses deal in some part with international affairs, directly or from the standpoint of American foreign policy. A student who so desires can devote himself entirely to international affairs in his choice of Field IV (see below).

Public affairs are broadly conceived to embrace activities in business and in journalism as well as service in government organizations at the national, state, local, and international level. Service in the Federal Government has claimed more of the alumni than any other career. The program emphasizes preparation for executive careers. It is designed both for candidates for the degree of Master in Public Affairs, with or without previous experience in government or business, and for others with such experience who desire to spend two or more terms at the School with the purpose of broadening their competence and qualifying for promotion to positions of larger responsibility. Applicants interested in teaching careers should examine the graduate programs of the various social science departments described elsewhere in this Announcement.

The graduate program of the School is described more fully in a special pamphlet which may be obtained from the Director of the Woodrow Wilson School of Public and International Affairs, Princeton University.

Admission. Two classes of students will be admitted to the graduate program of the School:

(1) Recent college graduates with little or no experience in government or business who will work in a two-year program for the master's degree. Admission will be restricted to men of superior ability and distinguished performance in previous scholastic work who are adequately prepared for the advanced work of this program.

(2) Men with several years' experience and outstanding achievement in government or business who are adequately prepared by previous education or experience for the advanced work of this program and who will spend at least two terms in residence whether or not they desire to work for the master's degree.

An applicant in either class may be admitted with some deficiency in preparation, but only with a requirement of appropriate additional course work or independent study.

The graduate program of the School calls for intensive work of the highest quality. Enrollment will be limited to a small group of men of exceptional attainment and promise. In all cases an applicant's career interests will be considered as well as his record.

A form for application for admission and for financial aid may be obtained from the Office of the Graduate School, Princeton University. In some cases a personal interview will be arranged for applicants who, on the basis of information submitted on the application form, can be considered for admission.

Master in Public Affairs. The degree of Master in Public Affairs will be awarded to a student who has satisfied the residence and language requirements, completed a short term of practical experience (unless excused), and passed the comprehensive examinations in the four fields listed below.

The normal residence requirement for the master's degree is two years. In exceptional cases, candidates with substantial experience in government or business or graduate study elsewhere may be permitted to meet this requirement with one year in residence. Fulfillment of this minimum residence requirement will not of itself be sufficient to secure admission to the comprehensive examinations.

A degree candidate without previous experience in government or business must complete an approved internship of full-time work in a government agency, business enterprise, or other appropriate organization, normally in the summer between his two years of study. In special cases equivalent work on a field study may be approved as meeting this requirement. Foreign students are excused from this requirement.

All degree candidates must, before the beginning of their second year, demonstrate an effective reading knowledge of at least one foreign language. It is highly desirable that this requirement be met by the middle of the first year.

The examination fields in which candidates for the degree of Master in Public Affairs will, in the normal case, be expected to attain a high order of proficiency are the following:

Field I. Economic Analysis.
Field II. American Institutions and Political Processes.
Field III. Applied Social Science Analysis.
Field IV. At least one approved "field" in any one of the social science departments, or an approved "area study."

The examination procedure is as follows:

In addition to any course examinations required by those in charge of seminars, each degree candidate shall, in the normal case, be required at the end of the first year to take comprehensive examinations in Field I and Field II.

Each degree candidate shall, in the normal case, be required at the end of the second year to take comprehensive examinations in Field III and Field IV. The examination in Field III will require evidence of continued mastery of Fields I and II. Admission to the comprehensive examinations in Fields III and IV requires faculty permission which will be based on evidence that the student is adequately prepared. A satisfactory performance in these examinations is required for the degree of Master in Public Affairs.

COURSES

The seminars listed below form the core of the graduate program in Public Affairs. In the normal case, approximately two-thirds of the student's time will be concerned with the Public Affairs courses. These have been designed to meet the special needs of men planning careers in public affairs rather than for men who intend to devote themselves to a life of scholarship and teaching. To this end, the School seminars provide a systematic presentation of those particular methods and principles in each of the social science disciplines which underlie the understanding and aid in the formulation and execution of economic, political, and social policy. They are not survey courses.

The remainder of the student's program will consist of approved selections from the appropriate graduate courses offered by other departments of the University, especially the Departments of Economics, History, Politics, and Sociology and Anthropology. In the normal case, most of these will be selected with the aim of preparing the student for Field IV. The description of courses in the various departments will be found in other sections of this Announcement.

Public Affairs 511, 512. *Economic Analysis*

A systematic selection and exposition of those principles and techniques of economic theory which have proved their usefulness in analyzing the types of economic problems most frequently faced by men in public affairs. The purposes are to provide training in orderly and rigorous methods, and to indicate how selected analytical tools may be applied to policy problems thought likely to be of continuing interest. Research papers are required. Among the subjects considered are national income determination and distribution, monetary and fiscal processes, principles of international trade and finance, determination of domestic and international economic equilibrium, input-output analysis, linear programming, and use and limitations of selected statistical techniques. Training in appropriate elementary mathematics for students lacking adequate previous preparation. *Professors* BAUMOL and KANE.

Public Affairs 515. *International Variations in Societies*

Analysis of certain major variations in the social and cultural systems of the nations and peoples of the world and an attempt to compare many of these variations in such a way as to be especially useful for the study of international policies and responsibilities. Two types of breakdowns are used: (1) a distinction between the social structures of highly modernized societies and those of relatively traditionalized ones, and (2) comparison of variations in particular institutional structures such as religious, economic, and political systems and such organizations as families, governments, firms, etc.

The primary emphasis is on types and ranges of social variation; attention will also be given to the respects in which these variations are overlays on certain common features of all societies. Research papers are required. *Professor* LEVY.

Public Affairs 521. *Historical Analysis of American Institutions*

An historical analysis of selected examples of the process of change in American political and economic institutions, concentrating on studies of the Presidency, the Congress, and the Supreme Court in the late nineteenth century; of the response of government and society to industrialism before the First World War; and of the evolution of American foreign policy in selected problem areas. Research papers and extensive readings are required. *Professors* LIVELY and LIVERMORE.

Public Affairs 522. *The American Political Process*

Study of the American political system in operation in the mid-twentieth century. It is designed to provide a systematic description and analysis of the way in which the political system works and the environment in which the public official operates. The theories of leading students of contemporary American politics are examined. Research papers are required. *Professors* BEANEY, BERNSTEIN, and KELLEY.

Public Affairs 523. *Public Administration and Policy Development*

Examination of the administration of modern government in the United States at all levels but with major emphasis on the federal government. Attention is given to the process of administration as part of political life rather than as a technical managerial task.

Public Affairs 531, 532 and 533, 534. *Research and Policy Problems*

Policy oriented seminars organized on an inter-disciplinary basis and normally offered on a two-term basis for second year students. They have the following major objectives: to develop a body of substantive knowledge about an important policy problem of continuing public concern which has both domestic and international facets, and to develop proficiency in applying and synthesizing the basic research methods and principles of the several social science disciplines. Approximately one-half of the student's time and energy available for this course is devoted to his individual research. Most of the research is of the library type, but short periods of field research are required whenever appropriate and feasible.

Inasmuch as each seminar is limited to approximately ten students, usually two seminars are offered. For 1961-1962 these will be *Economic Growth and Social Change in Underdeveloped Areas* (P.A. 531, 532), *Professors* Blum, Lockwood, and Patterson, and *National Security* (P.A. 533, 534), *Professors* Knorr, Kuenne *and* others. The first includes a comparative analysis of the processes of economic growth of selected highly industrialized Western countries and the processes in the present so-called underdeveloped areas. The nature and determinants of economic change and the related problems of political and social evolution are emphasized. On the National Security Seminar, attention is focused on such defense aspects as civil-military sector, strategic doctrines and capabilities, administration of research and development, alliance systems, and arms control.

THE PARVIN FELLOWS PROGRAM

R. W. VAN DE VELDE, *Director*

The Parvin Fellows Program was inaugurated in the Woodrow Wilson School of Public and International Affairs in 1961 and is designed to enable eight to ten mature young men on the thresholds of influential careers in the new and developing countries to spend a year in residence and study at Princeton. Parvin Fellows may attend, as non-degree candidates, any of the University's course offerings for which they are qualified and which will most nearly fulfill their own needs and interests. They will also meet once a week as a group in an informal seminar especially planned for them. Here they will engage in a critical analysis of the origins of United States institutions and culture, the nation's domestic and international problems, and its hopes. The instructor in this seminar will call on his colleagues in the various disciplines and other invited guests to assist in the discussions on a variety of subjects. Brief field trips to instrumentalities of U.S. federal, state, and municipal governments, to the United Nations, to industrial plants as well as to cultural and historical sites also will be made. More

NEW YORK UNIVERSITY

Graduate School of Public Administration and Social Service

PUBLIC ADMINISTRATION PROGRAM

ANNOUNCEMENT FOR THE
TWENTIETH SESSION
1957-1958

WASHINGTON SQUARE
NEW YORK

GRADUATE SCHOOL OF PUBLIC ADMINISTRATION AND SOCIAL SERVICE

The Graduate School of Public Administration and Social Service was founded in 1938. During the five preceding years the economic crisis through which the country was passing had caused an expansion of the government services that almost doubled the number of public employees and strained the resources of voluntary social service agencies to their limits. This school, at first known as the Graduate Division for Training in Public Service, was established to help meet the need for trained personnel in public administration and social service. In 1948 the name of the school was changed to the Graduate Division of Public Service and in 1953 to the Graduate School of Public Administration and Social Service. Since its inception over 4,500 have attended courses and 600 have received its degrees. These students have been drawn from all segments of the governmental and social services both here and abroad.

Since 1953 the Graduate School of Public Administration and Social Service has offered two separate but closely related programs, a Public Administration Program leading to the degrees of Master of Public Administration and Doctor of Philosophy with a major in Public Administration, and a Social Service Program leading to the degree of Master of Social Service. In addition, the school serves as the University's agent for planning and co-ordinating professional curricula, drawing together various fields of graduate study pertaining to public administration and social service.

The school's conception of training for public service, whether with governmental or voluntary agencies, is a broad one. It includes technical competence for the job, but goes beyond and regards a broad cultural background and an awareness of the wider implications of the special problems dealt with as essential qualifications. To this end the school draws not only upon its own offering but upon the rich graduate resources of the University.

The student body is drawn from all parts of the country and from every quarter of the globe. A large portion of the students in the Public Administration Program are already employed in the public service. For the convenience of employed students in the Public Administration Program, most classes are arranged to meet at late afternoon or evening hours. Students have come from all ranks of the service ranging from the junior levels to commissionerships. This results in fruitful experiences for all concerned. Both programs offer day classes for full-time students. The Social Service Program operates on a full-time basis for students who are candidates for a degree. It also offers courses to part-time students during convenient late afternoon and evening hours.

Resources of the Urban University

New York University enjoys the advantage of location in the heart of the New York metropolitan area, an unrivaled laboratory for the study of the disciplines with which the Graduate School of Public Administration and Social Service is concerned. The voluntary institutions of this area in the fields of health and welfare and the agencies of federal, state, and local government, which employ more civil servants than are to be found in the national capital, offer limitless opportunities for field work, internships, and research. Over thirty special private libraries and numerous research associations have made their resources available to the work of the school.

Through these facilities, the student interested in public finance, public health, labor relations, or in any one of the specialized phases of governmental work or in medical, psychiatric, family casework, group work, or other fields of social work may command a wealth of written material in the field and may witness at firsthand the function as it is performed in the metropolitan area. New York University offers graduate work in law, business administration, engineering, medicine, education, the sciences, and the arts, so the student of public administration or social work may integrate and develop his studies in many directions.

Public Administration Curriculum

The public administration curriculum of the school is intended to give the student a broad comprehension of the substantive content of public policy as well as the techniques and tools which facilitate its efficient administration. The program leads to the degree of Master of Public Administration and the degree of Doctor of Philosophy (in public administration) in co-operation with the Graduate School of Arts and Science. Courses are conducted by seminar, lecture, and research methods, according to the nature of the material and the relative advancement of the students.

Such a program is designed to meet the needs of the following groups of students: college graduates wishing to prepare themselves for entrance into the general administrative services of government; college graduates now in the civil service wishing a broader training as a means of advancement to higher administrative positions; college graduates in private business whose work entails close continuing relationship with government agencies and who wish therefore wider knowledge of the governmental administrative system; students in other graduate divisions of the University preparing themselves for entrance into the technical or scientific services of the government and wishing to round out their specialization with courses in general public administration.

The inclusion in the student body of those in service and those not

employed by the government provides intellectual stimulation for both groups. Because of the large number of government employees and of other persons in full-time employment among the student body, courses in the school are usually held between six and ten on five evenings during the week.

For specific days and hours courses are held, *see* Schedule of Courses for the Public Administration Program, pages 41–42.

The Faculty

The faculty is composed of both full-time members of the University staff and specialists who give part-time instruction. Most of the part-time specialists have been members of the faculty for many years and have a continuing relationship with the school. The faculty is unusual in that all its members have had experience in government service or in the social service in addition to their academic and professional backgrounds.

Program Planning

The faculty and staff of the school make every effort to adjust the graduate study of each individual student to his ultimate interest and placement in government work. A member of the faculty assists the entering student to plan his academic program, showing him how to integrate profitably his experience and educational background with advanced graduate study.

Special Curricula

In addition to general public administration, the school offers courses in several specialized fields of public administration. These include administrative theory and practice, organization and methods analysis, public personnel administration, international and comparative public administration, public relations, labor relations and social security, housing and planning, public finance and fiscal policy, correctional administration and law enforcement.

In addition, a number of core curricula are available to students in a wide variety of administrative areas. Such programs may be arranged for by consultation with the Student Counselor. Such schedules of study from which courses may be selected include: institutional management, training of administrators for underdeveloped areas, city management, metropolitan area and regional development, and budget management.

Facilities for Research and Field Work

A student entering the school without previous experience in the public service may be required to undertake field work in a public agency. An advanced student of exceptional ability may be allowed to participate in joint research projects conducted under the auspices of the school.

Albany Graduate Program in Public Administration

Under the sponsorship of the State of New York and with the cooperation of the State University of New York, the Graduate School of Public Administration and Social Service of New York University and the Maxwell Graduate School of Citizenship and Public Affairs of Syracuse University jointly offer in Albany a program of graduate instruction and research in public administration. This program is now in its ninth year. The work is intended for employees of the state and other government agencies in the capital district area who are college graduates and for other qualified persons who wish to prepare themselves for careers in the public service.

Qualified students may enroll for the degree of Master of Public Administration in either New York University or Syracuse University. The two schools recognize a full interchange of credit except that candidates for degrees in either institution must have completed satisfactorily at least twelve credit hours of instruction under the direction of the faculty of the school. The universities grant residence credit for work completed in this program and a variety of courses is offered from year to year so that all classwork for the Master of Public Administration degree can be completed in Albany. Instruction is given by regular members of the graduate faculties of the two institutions, and many legislators and administrators of the state government participate as guests in the class sessions. The resources of the New York State Library and the libraries of the two universities are available to students and faculty. Classes meet in the program's building near the state capitol. Persons interested in the course offering for 1957–1958 may obtain a copy of the Albany program bulletin by writing to either the Graduate Program in Public Administration, 198 State Street, Albany 1, N.Y., or the New York Office of the Graduate School of Public Administration and Social Service, Washington Square, New York 3, N.Y.

New York University–University of Ankara Program

The school administers the co-operative program of New York University with the University of Ankara, Turkey, for assisting that university and the Turkish Government in the field of public administration. The program is conducted under a contract between the International Cooperation Administration of the United States Government and New York University. Members of the faculty of the Graduate School of Public Administration and Social Service and of other schools of New York University, including the Schools of Law, Commerce, Graduate

School of Business Administration, and the University College of Arts and Science, join the faculties of the University of Ankara in Turkey under the project. In turn, members of the faculties of political science and law of the University of Ankara are in residence at New York University. The program includes instruction, curriculum development, research and publication, and in-service training activities in public administration and three supportive fields: law and legal research, accounting, and commercial and secretarial studies.

Federal and Municipal Personnel Programs

The school provides two separate but related programs for employees of federal agencies in the New York metropolitan area and for employees of the City of New York. The federal curriculum is jointly sponsored by the Second Regional Office, United States Civil Service Commission, the New York Federal Personnel Association, and the Graduate School of the United States Department of Agriculture. The municipal curriculum is jointly sponsored by the New York City Department of Personnel and the Municipal Personnel Society.

The objective of the programs is to provide instruction of high caliber, supplementary to both the regular public service training conducted by New York University and the in-service training provided by the government agencies. The program is designed to assist government personnel in preparing themselves for increased responsibilities in their jobs as well as for promotional opportunities.

The courses are noncredit and may not be used to fulfill the requirements for undergraduate or graduate degrees in colleges or universities. Consideration for promotional or other purposes may be given by the agency or the civil service department concerned.

Institute of Labor Relations and Social Security

The Institute of Labor Relations and Social Security was established within the Graduate School of Public Administration and Social Service by the Council of New York University in 1948 as a co-operative undertaking of the Graduate School of Public Administration and Social Service, the Graduate School of Arts and Science, the School of Law, and the Division of General Education and Extension Services of New York University. Since 1948 the institute has sponsored an annual conference on labor.

The institute provides:

A research program in the field of labor relations, social security, and related subjects

A program of professional institutes and conferences for practitioners in the field of labor and social security

A program of meetings for public information

A publication series of proceedings of professional conferences and results of research studies conducted by the institute

Each year the institute offers several research assistantships which are open to students who have successfully completed at least one year of graduate study in the field. Further information regarding the institute and the research assistantships may be obtained by writing the Dean, Graduate School of Public Administration and Social Service, Washington Square, New York 3, N.Y.

Institute of Planning and Housing

The Institute of Planning and Housing offers a program of research centered on the problems of urban decentralization in metropolitan areas. Persons interested in research assistantships may obtain further information by writing the Dean, Graduate School of Public Administration and Social Service, Washington Square, New York 3, N.Y.

ADMISSION, REGISTRATION, AND MATRICULATION

To secure matriculation in the Public Administration Program in the Graduate School of Public Administration and Social Service, a candidate must have filed with the office of the school an official transcript showing that he is a graduate of a college of approved standing and has received the baccalaureate degree in arts, science, philosophy, or letters, or that he is a graduate of a technical or professional college of standing equal to that of the School of Education, the College of Engineering, the College of Medicine, the School of Commerce, or the School of Law of New York University. Full information and application blanks for admission may be secured at the office of the school.

Before being accepted as candidates for the degree, those lacking sufficient social science background may be required to take courses in certain basic subjects in one of the undergraduate schools of the University.

Certain courses in the school are open to qualified seniors in the University who have maintained a grade of B in the subjects in which the desired course is taken and in the prerequisites to that course. Undergraduate students taking graduate courses under this rule are registered not as graduate students but as students in the school in which they are candidates for degrees and, upon successful completion of the course, receive credit for it in accordance with the regulations of that school. They must, however, apply for such courses at the Office of the Graduate School of Public Administration and Social Service in addition to registering in the school in which they are candidates for a degree.

PUBLIC ADMINISTRATION PROGRAM

SCHEDULE OF COURSES

Second Term

Time	*Monday*	*Tuesday*	*Wednesday*	*Thursday*	*Friday*	*Saturday*
10.45–12.30 2–4		S.S. 102				P.A. 128
4.15–6			P.A. 104			
6.15–8	P.A. 110, 215, 329 Econ. 254 Psych. 243	P.A. 104, 120, 162, 206 Econ. 118	P.A. 122, 132, 220, 266	P.A. 225, 232, 249, 282, 315 Econ. 252	P.A. 112, 148 Psych. 244	
8.10–9.55	P.A. 258, 268, 302	P.A. 202, 209, 237, 262, 303 Econ. 292 Govt. 217B	P.A. 107, 152, 259, 270	P.A. 103, 109, 214, 372 Econ. 220, 242, 294	P.A. 204, 248	

DESCRIPTION OF COURSES

Unless otherwise stated all courses are given at Washington Square. For purposes of convenience course descriptions are grouped under ten general headings.

Students are allowed to credit certain courses from other graduate schools of the University toward their degree of Master of Public Administration. These courses must be selected under advisement and must have the approval of the Student Counselor.

GENERAL PUBLIC ADMINISTRATION

103. PUBLIC ADMINISTRATION. Professor Spero and Assistant Professor Baldwin. Half course. September–January, repeated February–May.
September–January: Tuesday, 6.15–8, or Wednesday, 4.15–6
February–May: Thursday, 8.10–9.55
Administration and its role in modern government; an examination of national, state, and municipal administrative developments with emphasis on the use of executive leadership and control, the influence of scientific management principles and democratic controls over and in administration.

104. PROBLEMS AND PROCESS IN PUBLIC ADMINISTRATION. Prerequisite: P.A. 103 or the permission of the instructor. Professor Spero and Assistant Professor Baldwin. Half course. February–May.
Tuesday, 6.15–8, or Wednesday, 4.15–6
An examination of the principal problems and administrative processes in public agencies. Considers the rise of public personnel management; budget and fiscal controls; coordination, centralization, and decentralization; and administrative adjudication.

120. HISTORY OF ADMINISTRATIVE IDEAS AND INSTITUTIONS. Professor Dworkis and visiting lecturers. Half course. February–May.
Tuesday, 6.15–8
A survey of major concepts and administrative practices from Biblical times to modern America. Reviews and analyzes the contributions of scholars and statesmen to organization and methodology in public service.

121. PRIVATE LAW FOR THE ADMINISTRATOR. Adjunct Professor Gray. Half course. September–January.
Wednesday, 6.15–8
An examination of those principles of private law with which a public administrator should be familiar. Emphasis is on basic concepts in fields such as torts, property, agency, contracts, etc. The course is not designed for lawyers and does not purport to train people in the law.

122. PUBLIC LAW FOR THE ADMINISTRATOR. Adjunct Professor Gray. Half course. February–May.
Wednesday, 6.15–8
An examination of those principles of public law with which a public administrator should be familiar. Emphasis is upon such basic concepts as the rights and obligations of public administrators, federal-state relationships, the separation and delegation of govern-

mental powers, the nature of fact finding, judicial review, and due process. The course is not designed for lawyers and does not purport to train people in the law.

151–152. INTERNSHIP IN ADMINISTRATION. Faculty. Full course. September–May. Open for half-course credit in *either* term.
Hours to be arranged

By participation in the activities of an administrative agency or civic organization under the joint supervision of the agency head and a member of the faculty, the student receives direct knowledge of such special fields as planning, personnel management, law enforcement and correctional administration, research organization, budgeting, interdepartmental relations, and the range of informal liaisons that are the hallmark of effective administration. Open only to full-time students or those who are available during the day.

161–162. PRINCIPLES OF INSTITUTIONAL MANAGEMENT. Adjunct Professor Cohen. Full course. September–May. Open for half-course credit in *either* term by special permission.
Tuesday, 6.15–8

An examination of the basic principles with which an administrator in public, semipublic, or private institutions should be familiar. Analyzes problems of personnel management; work measurement; records control; food and supply requisitioning and purchasing; budget preparation; building maintenance; security; administrative planning; and relations with boards, colleagues, employees, and the public. Deals with concepts governing institutional care, the aims, purposes, and objectives, with emphasis given to detention and correctional institutional management. Includes field visits to training schools, correctional institutions, hospitals, and homes for the aged.

189. ADMINISTRATIVE PROBLEMS OF THE CITY OF NEW YORK. Professor Dworkis and commissioners of the City of New York. Half course. September–January.
Wednesday, 8.10–9.55

An analysis of the fundamental problems involved in the organization and activities of the government of the City of New York and of the metropolitan area. Includes such areas as executive and administrative organization, financing the city's operations, traffic control, law enforcement and juvenile delinquency, health and hospital management, educational administration, air pollution control, housing and buildings, ports and markets, welfare services, recreational facilities, etc. Special attention is given to integrating proposed solutions to city problems into the prospects of metropolitan planning and development.

201–202. LEADERS AND LANDMARKS IN PUBLIC ADMINISTRATION. Professor Spero. Full course. September–May.
Tuesday, 8.10–9.55

A seminar that examines the contribution to the theory and practice in public administration of leading statesmen, publicists, and scholars. Studies are made of the literature, including reports, legislation, and documents that have served as landmarks in the field. Open to students who have had previous work in public administration. Recommended for candidates for the Ph.D. degree with majors and minors in public administration.

[208. THE GOVERNMENT AS ENTERPRISER. Not to be given in 1957–1958.]

209. INTERGOVERNMENTAL RELATIONS—MODERN FEDERALISM IN OPERATION. Mr. Bebout. Half course. February–May.
Tuesday, 8.10–9.55

Deals with the methods and machinery devised to make the federal system function under present-day conditions. Covers such problems as grants-in-aid; interstate compacts; regional planning; uniform laws; the expanding area of federal-municipal relations in the fields of health, education, welfare, and public works.

210. GOVERNMENT PURCHASING AND SUPPLY. Mr. Lederman. Half course. September–January.
Tuesday, 8.10–9.55

For description, *see* page 55.

Govt. 217A,217B. MUNICIPAL GOVERNMENT AND ADMINISTRATION. *(Given in the Graduate School of Arts and Science.)* Professor Ronan. Full course. September–May. Open for half-course credit in *either* term with special permission.
Tuesday, 8.10–9.55

Deals with the problems of municipal government and administration against the legal, sociological, and economic backgrounds of cities. Conducted on a seminar basis with independent investigations and reports of special problems covering such fields as budgeting, municipal taxation and finance, city planning, municipal housing, public works, police administration, and the like. Special attention is given to the problems of metropolitan areas.

225. ADMINISTRATIVE REGULATION OF PRIVATE ENTERPRISE. Dr. Leerburger. Half course. February–May.
Thursday, 6.15–8

Deals with the role of government in the promotion and regulation of business enterprise, including such problems as monopoly, fair-trade practices, rate fixing, minimum standards. Examines public policies and the operation of the agencies designed to administer them.

[292. ADMINISTRATIVE PROBLEMS OF STATE GOVERNMENT. Not to be given in 1957–1958.]

301–302. THESIS SEMINAR. Faculty. Full course. September–May. Open for half-course credit in *either* term.
Monday, 8.10–9.55

The seminar is for students who have attained the second year of work in the school, or the equivalent, and who are engaged in writing theses. Individual student-faculty conferences are arranged from time to time as the needs of the work require.

315. SEMINAR ON REGULATORY ADMINISTRATION. Dr. Leerburger. Half course. February–May.
Thursday, 6.15–8

The public control of businesses such as electric power, gas, water and steam heat, and telephone enterprises. Development of a concept of regulation as an attempt to stimulate competition on the one hand and to adjust conflicts between public and private interests on the other, changing techniques in rate regulation, distribution of utility revenues obtained from different classes of consumers, consideration of private ownership and of public ownership.

319–320. GROUP FIELD RESEARCH SEMINAR. Faculty. Full course. September–May.
Hours to be arranged

Each year the faculty selects a topic in the area of public policy and administration for group field investigation and study. Students participate in the planning, field investiga-

tion, report writing, and all other phases of the study. Emphasis is placed on developing the individual student through group action. So far as feasible the study is conducted in the manner of governmental studies of this character. Training in research methodology, conference participation and leadership reporting, interviewing, and other phases of survey work is afforded the participants. At the discretion of the faculty, the enrolled students may substitute their contributions to the project for the traditional individual master's thesis. Students are rated upon their performance in the project as well as the product.

ORGANIZATION AND METHODS ANALYSIS

147. PRINCIPLES OF ORGANIZATION AND MANAGEMENT. Mr. Nowak. Half course. September–January.
Friday, 6.15–8

A survey of the basic principles and practices in organizational evaluation. Covers the fundamentals of program and project planning, management improvement, control design, supervision, staff training, and administrative reporting.

148. ADMINISTRATIVE METHODS AND TECHNIQUES. Mr. Nowak. Half course. February–May.
Friday, 6.15–8

The practices and techniques used in organizational and administrative analysis with particular reference to space and layout, equipment utilization, records management, forms control, and work simplification, the latter including work distribution, process charting, and the work count.

[149. TECHNIQUES OF MANAGEMENT SURVEYS. Not to be given in 1957–1958.]

219. ADMINISTRATIVE COMMUNICATION. Dr. Redfield. Half course. September–January.
Wednesday, 6.15–8

The internal processes of communication in an organization. Orders and instructions; manuals, handbooks, and circulars; administrative reporting; clearance; conferences; suggestion systems; interviewing and employee polls. Draws on developments in public and business administration and considers contributions made by other fields, such as sociology and psychology.

220. PROBLEMS AND PROCESS IN ADMINISTRATIVE COMMUNICATION. Prerequisites: P.A. 219 and the permission of the instructor. Dr. Redfield. Half course. February–May.
Wednesday, 6.15–8

An advanced course on theory and techniques of communication in management. Requires intensive individual and group research in organization and management and in related fields.

247. ADMINISTRATIVE PLANNING. Prerequisite: P.A. 147 or 148 or the permission of the instructor. Mr. Nowak. Half course. September–January.
Friday, 8.10–9.55

Administrative management in its broadest aspects; advanced techniques and case problems for middle- and top-management levels embracing organization, policy formulation, program development, preparation of manuals and instructional materials, distribution systems and appraisal of internal instruction methods.

248. MANAGERIAL CONTROL. Prerequisites: P.A. 147 or 148 and 247 or the permission of the instructor. Mr. Nowak. Half course. February–May.
Friday, 8.10–9.55

The formulation and functioning of management controls at the top levels; the utilization of work measurement, including time study and other methods; production planning and control; financial planning; and co-ordination of funds and agency operations.

[347. SEMINAR IN ORGANIZATION AND METHODS ANALYSIS. Not to be given in 1957–1958.]

INTERNATIONAL AND COMPARATIVE PUBLIC ADMINISTRATION

120. HISTORY OF ADMINISTRATIVE IDEAS AND INSTITUTIONS. Professor Dworkis and visiting lecturers. Half course. February–May.
Tuesday, 6.15–8

For description, *see* page 43.

215. ADMINISTRATION OF OVERSEAS INFORMATION AND PROPAGANDA SERVICES. Dr. Nathan. Half course. February–May.
Monday, 6.15–8

For description, *see* page 51.

281. ADMINISTRATIVE PROBLEMS OF UNDERDEVELOPED AREAS. Dr. James. Half course. September–January.
Tuesday, 6.15–8

A study of the particular problems of public administration faced by underdeveloped areas, both colonial and self-governing, and of the work and assistance rendered by the United Nations Technical Assistance Administration and the specialized agencies as well as plans of national assistance like the United States Point Four program. Special attention is given to the specific needs and proposed solutions in administrative organization and management, personnel administration, financial administration, health, sanitation, economic planning, police, and related functions in selected nations and areas in Asia, Africa, and South America.

282. INTERNATIONAL ADMINISTRATION. Professor Dworkis. Half course. February–May.
Thursday, 6.15–8

An examination of the problems of administering international agencies with special reference to administrative organization, personnel, budget, administrative management, and related functions. A comparative study is made of administrative practices and organization in the United Nations, I.L.O., F.A.O., UNESCO, I.T.O., and similar agencies. Special emphasis is given to those problems of administration that arise because of different cultural backgrounds.

303. SEMINAR ON COMPARATIVE PUBLIC ADMINISTRATION. Instructor to be announced. Half course. February–May.
Tuesday, 8.10–9.55

A comparative analysis of the administrative systems of the governments of Western Europe and the United States with some reference to pertinent practices in other countries. The universal applicability of basic concepts of public administration is explored.

356. SEMINAR ON COMPARATIVE LABOR RELATIONS. Mr. Levitt. Half course. September–January.
Thursday, 6.15–8
For description, *see* page 53.

The following courses in other graduate schools of the University may be taken with special permission:

Econ. 291–292. ECONOMIC PROBLEMS OF UNDERDEVELOPED AREAS. Adjunct Assistant Professor Alpert. Full course. September–May.
Tuesday, 8.10–9.55

Econ. 294. TECHNIQUES AND PROBLEMS OF PLANNING IN UNDERDEVELOPED COUNTRIES. Adjunct Professor Pintos. Half course. February–May.
Thursday, 8.10–9.55

PERSONNEL

129. HUMAN RELATIONS IN ADMINISTRATION. Prequisite: permission of the instructor. Mr. Marshall. Half course. September–January.
Monday, 6.15–8

An analysis of the nature of rewards and punishments available to administrators, roles, relationships among individuals and levels in various forms of the administrative hierarchy, the effects of change and some of the psychological factors in the exercise of authority. Findings of clinical and industrial psychology and of anthropology are drawn upon. Students are asked to evaluate their own experiences and behavior in administrative situations.

130. THE DYNAMICS OF SUPERVISION AND GROUP LEADERSHIP. Mr. Mayer. Half course. September–January.
Wednesday, 8.10–9.55

A critical examination of theories and practices of supervision, executive development, and other training programs; the problems involved in pertinent areas such as facilitating satisfactory employee attitudes, psychology of participation, principles of effective leadership, supervisor-employee relationships, morale factors. Each student participates as both leader and critic in case studies and conference role playing.

131. PUBLIC PERSONNEL ADMINISTRATION. Dr. Lang and visiting lecturers. Half course. September–January.
Wednesday, 6.15–8

A survey course in public personnel administration. Deals with the fundamental principles of personnel administration and organization of the merit system.

132. PROBLEMS AND PROCESS IN PUBLIC PERSONNEL ADMINISTRATION. Prerequisite: P.A. 131 or the permission of the instructor. Dr. Lang and visiting lecturers. Half course. February–May.
Wednesday, 6.15–8

A critical analysis of personnel techniques used in the public service, including recruitment, selection, classification and compensation, promotion, supervision, merit rating, training, and maintenance of employee morale.

231–232. LAW OF THE CIVIL SERVICE. Adjunct Professor Kaplan. Full course. September–May.
Thursday, 6.15–8

An intensive course designed primarily for government administrators. Among the subjects to be discussed are constitutional concepts of the civil service law; scope of civil service laws—their general purposes and application; powers and functions of personnel departments, removals, suspensions, and penalties; pensions and retirement allowances; veterans' preference legislation and administration. Covers basic principles of administrative law.

[235. EMPLOYER-EMPLOYEE RELATIONS AND GRIEVANCE POLICIES IN GOVERNMENT. Not to be given in 1957–1958.]

236. RECRUITMENT AND TESTING IN THE PUBLIC SERVICE. Associate Professor Wilke. Half course. September–January.
Thursday, 8.10–9.55

The principles involved in establishment of job qualifications, appraisal of candidates for public service positions, estimation of potentialities for upgrading, and evaluation of job performance. A study of the predictive value of measures of basic abilities, specialized knowledge, and personality factors, and of the results obtained from a combination of measures. The merits and limitations of these evaluation procedures are considered in terms of reliability, validity, and appropriate weighting and scoring techniques in the practical context of the actual selection situation.

237. POSITION CLASSIFICATION AND WAGE ADMINISTRATION. Mr. Palmer. Half course. February–May.
Tuesday, 8.10–9.55

A critical study of federal, state, and municipal position classification systems and salary and career plans. Considers the role of classification in the managerial process and as an instrument of personnel administration. Evaluation and comparison of the various career systems in relationship to the classification concept.

285. EMPLOYMENT SECURITY, RETIREMENT AND PENSION PROGRAMS. Adjunct Professor Kaplan. Half course. September–January.
Thursday, 8.10–9.55
For description, *see* page 53.

329. SEMINAR IN ADMINISTRATIVE BEHAVIOR. Prerequisite: P.A. 129 or the permission of the instructor. Mr. Marshall and faculty. Half course. February–May.
Monday, 6.15–8

An intensive analysis of the characteristics of behavior in administrative situations. Students participate in the organization of case material and in role playing. Draws heavily upon the findings of developmental programs in government and industry as well as upon clinical, personnel, and social psychology. Primarily designed for Ph.D. candidates.

The following courses in other graduate schools of the University may be taken with special permission:

I.E. 105. JOB EVALUATION. (*Given in the Graduate Division, College of Engineering.*) Prerequisite: I.E. 54–64 or 75. University Heights. Half course. September–January.

Psych. 241. PERSONNEL PSYCHOLOGY. (*Given in the Graduate School of Arts and Science.*) Adjunct Professor Fryer. Half course. September–January.
Friday, 6.15–8

Psych. 243. FUNDAMENTALS OF PSYCHOLOGICAL MEASUREMENT. (*Given in the Graduate School of Arts and Science.*) Prerequisite: an introductory course in statistics. Adjunct Associate Professor Cohen. Half course. September–January, repeated February–May.
September–January: Friday, 6.15–8 (two additional hours to be arranged)
February–May: Monday, 6.15–8 (two additional hours to be arranged)

Psych. 244. PSYCHOMETRIC THEORY IN MEASUREMENT OF ABILITIES AND PERSONALITY. (*Given in the Graduate School of Arts and Science.*) Prerequisite: Psychology 243 or the permission of the instructor. Adjunct Associate Professor Cohen. Half course. February–May.
Friday 6.15–8 (two additional hours to be arranged)

Psych. 245–246. COUNSELING AND GUIDANCE. (*Given in the Graduate School of Arts and Science.*) Instructor to be announced. Half course. September–January.
Monday, 4.15–6

PUBLIC RELATIONS

115. GOVERNMENT PUBLICITY AND INFORMATION. Messrs. Lehman and Margolin. Half course. September–January.
Tuesday, 6.15–8

A detailed study of the development of practical publicity and information programs for government agencies with emphasis on the varied roles of public relations and the approach and solution of public relations problems; definitions and uses of research, short- and long-range objectives, publics, themes and appeals, strategy, tactics and timing, and media of communication. The course presents a step-by-step procedure for the application of the techniques of public relations to the solution of specific problems; the factors involved in the making, growth, and change of public opinions and attitudes, and the means for building acceptance of ideas. Members of the class are required to prepare and present a complete public relations program on a specific problem dealing with a public agency.

117. PUBLIC RELATIONS FOR SOCIAL SERVICE AND CIVIC ORGANIZATIONS. Messrs. Lehman and Margolin. Half course. September–January.
Tuesday, 8.10–9.55

The special problems of public relations and public information facing civic and social service agencies. Emphasis is on the use of public relations in carrying out the organization's objectives; the various roles public relations can assume in solving problems involving membership, the community, other civic and social service agencies, government, contributors, and employees; the role of public relations in fund raising. Stresses development of an actual public relations program for specific civic and social service organizations, and actual case histories are drawn upon.

Discussion of the uses of research, objectives, publics, themes, strategy, tactics, and media. Study of the use of intraorganizational communications, relations with other groups in the field and with the press. Preparation of a complete public relations program for a civic or social service agency is a requisite.

214. PUBLIC RELATIONS. Associate Professor Wilke. Half course. February–May.
Thursday, 8.10–9.55

Analysis of the public relations problems of governmental agencies and survey of existing practices. Appraisal of problem areas, formulation of a systematic program, analysis and selection of media, and specialized techniques of effective presentation. Current practice is evaluated in the light of significant contributions from allied social sciences. Development of a core of fundamental principles embodying research findings regarding basic human motives, the formation of attitudes, nonrational learning and selective perception in relation to the control of public opinion, reactions to propaganda appeals, and the implications of general semantics for successful public relations. Methods for evaluating the results of public relations activities.

215. ADMINISTRATION OF OVERSEAS INFORMATION AND PROPAGANDA SERVICES. Dr. Nathan. Half course. February–May.
Monday, 6.15–8

The problems of organization and administration of propaganda activities for and by democracies. The role of strategy, tactics, media, and techniques of political and psychological warfare; their inherent handicaps within the democratic system and methods of overcoming totalitarian propaganda advantages. Taking and holding the initiative; training for and planning of effective propaganda; clarification of common misunderstandings deriving from generalized political, journalistic, and advertising concepts.

219. ADMINISTRATIVE COMMUNICATION. Dr. Redfield. Half course. September–January.
Wednesday, 6.15–8
For description, *see* page 46.

220. PROBLEMS AND PROCESS IN ADMINISTRATIVE COMMUNICATION. Prerequisites: P.A. 219 and the permission of the instructor. Dr. Redfield. Half course. February–May.
Wednesday, 6.15–8
For description, *see* page 46.

LABOR RELATIONS AND SOCIAL SECURITY

S.S. 102. PUBLIC WELFARE ORGANIZATION. Associate Professor Mencher. Half course. February–May.
Tuesday, 2–4

The various social services provided by governmental authority and the levels of government providing them, with special consideration of local public assistance and the federal social security programs. The social welfare activities of public departments of health, welfare, mental hygiene, correction, hospitals, and veterans' affairs are considered along with those of the courts. The application of social work concepts, methods, and skills in such programs is treated. The interrelationships of the programs are examined together with the economic and political factors that condition them.

172. PUBLIC WELFARE ADMINISTRATION. Associate Professor Mencher. Half course. September–January.
Thursday, 8.10–9.55

The application of generic principles of administration to the field of public welfare. Emphasis is placed on development of welfare policy in a politically oriented environment. Such procedures as regulation, personnel management, organization, and public participation are discussed and examined through case analysis.

[235. EMPLOYER-EMPLOYEE RELATIONS AND GRIEVANCE POLICIES IN GOVERNMENT. Not to be given in 1957–1958.]

[250. THE COLLECTIVE LABOR AGREEMENT. Not to be given in 1957–1958.]

251–252. SOCIAL SECURITY AND ITS ADMINISTRATION. Professor MacDonald. Full course. September–May. Open for half-course credit in *either* term.
Wednesday, 8.10–9.55

The various forms of social security, including workmen's compensation, old age benefits and assistance, unemployment compensation and relief, and health insurance; the economic, social, and political backgrounds of social security; significant foreign developments, including proposals for the extension of social security systems; administrative problems at the various levels of government.

253. COLLECTIVE BARGAINING. Adjunct Professor Gray. Half course. September–January.
Monday, 6.15–8

The methods and objectives of collective bargaining with emphasis on the approach and strategy of the parties leading to the formulation of the agreement; consideration is given to grievance procedures, wage schedules, job security clauses, and other aids and protections. Special attention is given to the administration of collective agreements and to both governmental and industry-union machinery for mediation and arbitration.

[256. WAGE AND HOUR ADMINISTRATION. Not to be given in 1957–1958.]

257–258. PUBLIC CONTROL OF LABOR RELATIONS. Adjunct Professor Gray. Full course. September–May.
Monday, 8.10–9.55

The legal principles that control and regulate labor relations and an appraisal of their function as instruments of social policy. The following subjects are dealt with: the strike, picketing, the boycott, sympathetic and secondary action, and the lockout; the labor injunction, federal and state anti-injunction statutes; conflicts between rival unions; the internal management of unions; the collective labor agreement, its nature and legal status; mediation and arbitration, their characteristics and governing rules.

259. ADMINISTRATION OF THE NATIONAL LABOR RELATIONS ACT. Adjunct Professor Gray. Half course. February–May.
Wednesday, 8.10–9.55

The Act as amended by the Taft-Hartley Act, dealing with: machinery for the administration of the Act; obligations imposed upon employers and unions; effect of the Act upon such matters as freedom of speech, the right to strike, union security, interunion conflicts, collective bargaining, and labor agreements; the sanctions and remedies; the enforcement procedures; determination of bargaining representatives; the extent of judicial review; the relation to like statutes adopted by the several states.

285. EMPLOYMENT SECURITY, RETIREMENT AND PENSION PROGRAMS. Adjunct Professor Kaplan. Half course. September–January.
Thursday, 8.10–9.55

The development, organization, and trends in retirement and pension plans in government agencies are reviewed and evaluated. The effect of retirement plans, their integration or co-ordination with social security coverage and fringe benefit programs, the impact upon personnel policies, and the implications of cost factors on fiscal policies of retirement programs are examined and contrasted with developments in industrial retirement and welfare plans.

356. SEMINAR ON COMPARATIVE LABOR RELATIONS. Mr. Levitt. Half course. September–January
Thursday 6.15–8

A comparative analysis of the labor relations programs of the governments of Western Europe and the United States with some reference to pertinent practice in other countries.

372. SEMINAR IN PUBLIC WELFARE ADMINISTRATION. Prerequisite: P.A. 102 or 172 or the permission of the instructor. Mr. McCarthy. Half course. February–May.
Thursday, 8.10–9.55

An examination of the principles and processes of administration in the field of public welfare. Critically analyzes welfare policy and management on federal, state, and local levels.

The following courses in other graduate schools of the University may be taken with special permission:

I.E. 202. WAGE INCENTIVES, THEIR DESIGN AND APPLICATION. (*Given in the Graduate Division, College of Engineering.*) Prerequisite: I.E. 77 or 83 or 87. Professor Emeritus Lytle. University Heights. Half course. February–May.

Econ. 251,252. TRADE-UNIONISM AND LABOR RELATIONS. (*Given in the Graduate School of Arts and Science.*) Prerequisite: a course in labor problems or the permission of the instructor. Professor Stein. Full course. September–May. Open to qualified students for half-course credit in *either* term with special permission.
Thursday, 6.15–8

PLANNING AND HOUSING

[261. HOUSING. Not to be given in 1957–1958.]

262. HOUSING AND COMMUNITY PLANNING. Miss Brophy. Half course. February–June.
Tuesday, 8.10–9.55

An analysis of the fundamental relationship of the individual to the socioeconomic community; social, recreational, educational, and related facilities in public and private

housing projects, neighborhoods, and communities; the nature of community development and the effect of ecological change.

263. HOUSING LAW AND ADMINISTRATION. Adjunct Professor Hillman. Half course. September–January.
Monday, 8.10–9.55
Study and analysis of federal, state, and local public housing programs; slum clearance; urban redevelopment and renewal; neighborhood rehabilitation and conservation; defense and veterans' housing; federal mortgage insurance; co-operative housing; redevelopment and limited dividend companies; housing finance, including methods of government participation in mortgage credit facilities. Study of jurisdiction, functions and interrelationships of governmental housing agencies. Statutes, cases, orders, readings, and other materials are used in covering this course matter.

[264. HOUSING MANAGEMENT. Not to be given in 1957–1958.]

265. PROBLEMS AND TECHNIQUES OF URBAN PLANNING. Adjunct Professor Weinberg. Half course. September–January.
Wednesday, 6.15–8
The planning function in local government; the objectives of physical planning; major problems faced by planning agencies today; the history and legal basis of planning; the use and ownership of public and private land; the meaning and use of the master plan; zoning and the control of private use of land; urban rehabilitation; the neighborhood as the basic planning unit; planning for education, recreation, and other public services; the movement of people and goods; streets, highways, and the parking problem; planning for commerce and industry; civic design; the community and its relation to the metropolitan region. It is recommended that a student electing this course either has taken or intends to elect 266.

266. PLANNING AS A FUNCTION OF MUNICIPAL GOVERNMENT. Adjunct Professor Weinberg. Half course. February–May.
Wednesday, 6.15–8
The functions and administration of an urban planning agency; the tools of physical planning; public relations and citizen participation in planning; city planning in relation to county, state, regional, and national planning; the relation of planning to other divisions of city government; fiscal planning; municipal planning agencies, their duties and powers; planning staffs and budgets; the assembly and analysis of data; the making and presentation of plans; planning for public buildings; services and utilities; a comparison of public planning procedures in various cities. It is recommended that a student electing this course either has taken or intends to elect 265.

[267. PUBLIC PLANNING. Not to be given in 1957–1958.]

268. LAND USE REGULATION. Adjunct Professor Hillman. Half course. February–May.
Monday, 8.10–9.55
Deals with the legal and administrative aspects of governmental regulation of land use, both urban and rural, at the three levels of government. Particular attention is devoted to zoning and planning, subdivision controls, streets and highways, urban redevelopment, building codes, eminent domain, conservation and reclamation and the public domain. Study is made of the interstate compact and regional agencies, such as T.V.A., as instruments of planning.

269–270. THE DESIGN OF COMMUNITIES AND RESIDENTIAL NEIGHBORHOODS. Prerequisites: P.A. 265 and 266, or the equivalent, and the permission of the instructor. Adjunct Professor Weinberg. Full course. September–May.
Wednesday, 8.10–9.55
A workshop course in which the class develops a realistic plan for a selected area in the New York metropolitan region, collecting, recording, and analyzing data from official sources and preparing simple drawings and models. Collateral reading and discussion of the urban, suburban, and self-sufficient community; the neighborhood as the basic planning unit; density, topography, and other quantitative and qualitative standards of design; effect on current residential design techniques, here and abroad, of population changes and new living habits.

[368. SEMINAR IN URBAN RENEWAL. Not to be given in 1957–1958.]

FINANCIAL ADMINISTRATION AND FISCAL POLICY

210. GOVERNMENT PURCHASING AND SUPPLY. Mr. Lederman. Half course. September–January.
Tuesday, 8.10–9.55
Deals with the administration of government procurement programs. Covers methods of public purchase; quality control and inspection; development of standard specifications; storage and inventory; research and development of governmental purchasing is contrasted with that of private industry. Problems of military as well as civilian procurement are treated.

241. FINANCIAL ADMINISTRATION. Associate Professor Kurnow. Half course. September–January.
Thursday, 6.15–8
Covers such topics as: the administrative financial organization; accounting of revenues, expenditures, and public debt; preaudit and postaudit; assessment and collection of taxes; purchasing of materials and letting of contract; management of publicly owned undertakings; administration of pension funds; management of public debt; administration of federal and state aid.

Econ. 241. TAXATION IN THE UNITED STATES. (*Given in the Graduate School of Arts and Science.*) Associate Professor Girard. Half course. September–January.
Thursday, 8.10–9.55
The pattern of federal, state, and local taxation. Property, individual income, business, and other main types of taxes. Taxation as a means of economic and social control.

Econ. 242. FISCAL POLICY. (*Given in the Graduate School of Arts and Science.*) Associate Professor Girard. Half course. February–May.
Thursday, 8.10–9.55
The employment of public expenditures and taxation in economic stabilization. Coordination of fiscal policy with debt management and other contracyclical measures.

[245. AMERICAN FISCAL STRUCTURE. Not to be given in 1957–1958.]

249. BUDGETING. Associate Professor Kurnow. Half course. February–May.
Thursday, 6.15–8
An analysis of the budget as an instrument of fiscal planning and administration. Includes examination of the process of budget construction and execution, revenue estimation, and the use of the budget as an instrument of management control. Various types of budget are examined including line item, lump sum, and performance budgets.

[297. TAX POLICY. Not to be given in 1957–1958.]

LAW ENFORCEMENT AND CORRECTIONAL ADMINISTRATION

106. PRINCIPLES OF CRIMINAL INVESTIGATION. Mr. Eastman. Half course. September–January.
Thursday, 6.15–8

Criminal investigation administration and procedures. The collection and preservation of physical evidence. Interview and interrogation of complainants, witnesses, victims, suspects, informants. Preparation and presentation of evidence.

107. TECHNIQUES OF SCIENTIFIC CRIMINAL INVESTIGATION. Instructor to be announced. Half course. February–May.
Wednesday, 8.10–9.55

The police science laboratory—fingerprints, ballistics, documents, serology, photography, and related sciences. Mechanical means for detecting deception.

109. ADMINISTRATION OF JUSTICE. Instructor to be announced. Half course. February–May.
Thursday, 8.10–9.55

Stresses the machinery of justice in theory and practice, the significance of the rule of law and its exceptions in the actual administration of justice. Special attention is devoted to progressive changes in the development of children's and adolescents' courts, probation, classification clinics, crime prevention, and reforms of the criminal law and also to special problems of justice and the poor, administrative denials of justice, the insane offender, the white-collar criminal, and social reconstruction through law. Cases, materials, and class reports are assigned. (Field trips may be arranged.)

110. POLICE ADMINISTRATION. Mr. Eastman. Half course. February–May.
Monday, 6.15–8

Surveys the field of police administration in its theoretical and practical aspects. Provides a general orientation to the methods and problems of police administration and a specific consideration of the major divisions of the field, including patrol and detection, records and communication, special crime problems and preventive work, co-operation between jurisdictions and with other agencies.

[111. TRAFFIC CONTROL AND ACCIDENT INVESTIGATION. Not to be given in 1957–1958.]

112. INTERVIEWING AND COUNSELING IN PREVENTION, PROBATION, AND PAROLE. Mr. Sayler. Half course. February–May.
Friday, 6.15–8

Covers the theory and practice of interviewing and counseling in the prevention and correctional fields. Emphasis is given to techniques of reaching the client. Actual case records are analyzed along with a review of the literature.

119. PROBLEMS AND TECHNIQUES IN DOCUMENTS EXAMINATION. Mr. Tytell. Half course. September–January
Monday 8.10–9.55

Theory, principles, and techniques in document examination; special problems with altered and forged public documents and records; role of document examiner in the investigation of arson, blackmail, embezzlement, and related crimes; preparation of illustrative exhibits; role of the document examiner in court.

128. CONTEMPORARY CORRECTIONAL ADMINISTRATION. Instructor to be announced. Half course. February–May.
Saturday, 10.45–12.30.

A discussion course devoted to the unsolved problems of contemporary correction and to new approaches in the field. Attention is given to the relative place of institutional treatment in the total treatment program, the functions and limitations of the prison, the diversification of institutions, the next steps in the adaption of prison treatment to individual needs, treatment methods in prison, prison discipline, the sex problem in prison, the training of prison personnel, the indeterminate sentence, parole selection, and legal obstacles to progressive penology.

161–162. PRINCIPLES OF INSTITUTIONAL MANAGEMENT. Adjunct Professor Cohen. Full course. September–May. Open for half-course credit in *either* term by special permission.
Tuesday, 6.15–8

For description, *see* page 44.

204. CASEWORK METHODS IN PREVENTION AND CORRECTION. Dr. Dumpson. Half course. February–May.
Friday, 8.10–9.55

Designed to provide information about the theory, principles, and techniques of accepted casework practice as they apply to the fields of prevention and correction. Casework methods are considered in relation to the fields of probation and parole and to the social services in correctional institutions and agencies. Particular attention is devoted to the advantages and limitations in the employment of authority for effective correctional casework.

207. PREVENTION, PROBATION, AND PAROLE: THEORY AND ADMINISTRATION. Instructor to be announced. Half course. September–January.
Friday 6.15–8

Theory and methods employed in the rehabilitative and correctional processes of probation and parole. The role of the clinic, casework methodology, community resources, personnel, and budget are considered.

[213. POLICE DELINQUENCY PREVENTION PROGRAMS. Not to be given in 1957–1958.]

[216. INDUSTRIAL SECURITY. Not to be given in 1957–1958.]

313. SEMINAR IN LAW ENFORCEMENT AND CORRECTIONAL ADMINISTRATION. Instructor to be announced. Half course. September–January.
Tuesday, 8.10–9.55

Analytical review of current developments and contributions by agencies and academic institutions to law enforcement and correctional administration. Analysis of the problems of interrelationship, interdependence, and integration of law enforcement and correctional administration.

The following courses in the *Graduate School of Arts and Science* may be taken with special permission:

Soc. 208. SMALL-GROUP ANALYSIS. Professor Borgatta. Half course. February–May.
Monday, 8.10–9.55

[Soc. 209. JUVENILE DELINQUENCY. Not to be given in 1957–1958.]

[Soc. 231. CRIMINOLOGY. Not to be given in 1957–1958.]

[Soc. 232. PENOLOGY. Not to be given in 1957–1958.]

STATISTICS AND ACCOUNTING

108. STATISTICAL ANALYSIS. Mr. Hoberman. Half course. September–January.
Monday, 6.15–8

A treatment of fundamental principles in the collection, presentation, and analysis of numerical data. Emphasis is placed upon the construction and the use of statistical tables and charts for the purpose of communication, control, and decision making in administration. Assumes no prior mathematical knowledge on the part of the student.

206. ACCOUNTING. Instructor to be announced. Half course. February–May.
Tuesday, 6.15–8

Surveys the fundamental concepts of accounting and is designed to familiarize students with accounting as a tool of administration. Includes consideration of the balance sheet, analysis of financial statements, special features of corporation accounting, and basic aspects of cost accounting.

The following courses in the *Graduate School of Arts and Science* may be taken with special permission:

Econ. 117–118. STATISTICAL METHODS IN SOCIAL RESEARCH. Professor Arnold. Full course. September–May. (Open to qualified students for half-course credit in the second term with the permission of the instructor.)
Tuesday, 6.15–8

Econ. 217. STATISTICAL INFERENCE. Prerequisite: Econ. 117–118 or the equivalent. Visiting Assistant Professor Norris. Half course. September–January.
Thursday 8.10–9.55

Econ. 220. REGRESSION STATISTICS, ANALYSIS OF VARIANCE. Prerequisites: Econ. 117–118, or the equivalent, and Econ. 217. Visiting Assistant Professor Norris. Half course. February–May.
Thursday, 8.10–9.55

SOCIAL SERVICE PROGRAM COURSES

The following courses offered in the *Social Service Program* may be taken by public administration students with faculty permission:

To Be Offered In 1957-1958

S.S. 101. THE SOCIAL SERVICES IN THE UNITED STATES.

S.S. 104. SOCIAL SERVICES FOR CHILDREN.

S.S. 212. SOCIAL SERVICES ABROAD.

S.S. 213. PSYCHOPATHOLOGY.

S.S. 216. CULTURAL FACTORS IN SOCIAL ADJUSTMENT.

S.S. 218. PHYSICAL AND PSYCHOSOMATIC ILLNESS.

S.S. 285. INTERPRETATION OF SOCIAL SERVICES.

S.S. 286. LAW AND SOCIAL WORK.

S.S. 312. PSYCHOPATHOLOGY OF ADULTS.

S.S. 313. PSYCHOPATHOLOGY OF THE LEGAL OFFENDER.

Description of course content and schedule of hours are available in the Social Service Program bulletin.

APPENDIX (11)

Institutional Management

This appendix consists of three (3) sections. Section one consists of an excerpt from Lovejoy's college guide for informational purposes plus two pages containing one undergraduate and three graduate master programs in Hospital Administration. Section two consists of an excerpt from Lovejoy's college guide for informational purposes plus four pages containing seven undergraduate programs in Hotel and Restaurant Administration. Section three contains two pages and presents two graduate master programs in Hotel and Restaurant Administration.

This appendix was not directly involved in the main stream of our research and is presented more for limited comparison and information rather than for comprehensiveness. It would have been desirable to present a larger selection in some of the areas but we were limited not only by time limitations but also by specific institution catalog availability.

KEY:

H	denotes semester hours
QH	denotes quarter hours
*	denotes areas of selection or major study in which a stated number of hours are required as electives

SECTION (1)

LOYOLA COLLEGE GULF

Hospital
Administration

DISTRICT OF
COLUMBIA
George Washington

GEORGIA
Georgia State Coll.

ILLINOIS
Chicago, U. of

IOWA
Iowa, U. of

MICHIGAN
Michigan State
Michigan, U. of

MINNESOTA
Minnesota, U. of

MISSOURI
St. Louis U.
Washington

NEW YORK
Cornell

NORTH CAROLINA
Duke

OHIO
Xavier, U.

PENNSYLVANIA
Pittsburgh, U. of

TEXAS
Baylor

VIRGINIA
Virginia, Medical
Coll. of

COURSE AREA OR TITLE	Michigan State Undergraduate Bachelor of Hosp Administrati
Accounting	10 QH
Bacteriology	4 QH
Business Law	3 QH
Business Math & Statistics	8 QH
Business Writing & Technical Repts	8 QH
Chemistry	11 QH
Economics	8 QH
Food Management & Purch	9 QH
Food Preparation	4 QH
Food Production	10 QH
General Electives	12-13 QH

COURSE AREA OR TITLE	Saint Louis Uni Masters progra Hospital Admin	State University Iowa Masters pr Hospital Admin	University of I Masters progr Hospital Admin
Advanced Hospital Administration		3 H	3 H
Business Management	3 H		
Clinical Education in Hospital Administration		5 H	
Financial Management	6 H		
Hospital Community Relationships	3 H	2 H	3 H
Hospital Organization and Management	7 H	9 H	9 H
Hospital Personnel Administration	3 H		
Legal Aspects of Hospital Administration	2 H		
Medical Information for Hospital Administration		3 H	
Post Residency Seminar	2 H		
Principles of Hospital Administration		2 H	6 H

COURSE AREA OR TITLE	Michigan State U Undergraduate Bachelor of Hosp Administratio	Saint Louis Univ Masters progra Hospital Admin	State University Iowa Masters Pr Hospital Admin	University of I Masters progra Hospital Admin
Health Care Facilities	5 QH			
Health Facilities Organ., and Management	4 QH			
Health Facilities Supplies, Equipment and Procedures	4 QH			
Institutional Management	4 QH			
Internship	800 Hrs			
Nutrition	4 QH			
Organization & Administration	4 QH			
Physiology	7 QH			
Psychology	4 QH			
Service Equipment and Maintenance	10 QH			
Service Industry Accounting	4 QH			
Seminar in Hospital Administration		3 H	6 H	3 H
Social Basis for Administration		3 H	2 H	3 H
Statistics				9 H
Hospital Administration Residency		1 Yr	1 Yr	1 Yr
Thesis		Opt	Yes	Yes

SECTION (2)

Hotel, Motel and Restaurant Administration

ALABAMA
Alabama Agric. and Mech. Coll.
Alabama Coll.
Alabama, U. of
Auburn U.
Florence State Coll.
Jacksonville State U.
Tuskegee Inst.

ARIZONA
Arizona, U. of

CALIFORNIA
Contra Costa Coll.
Laney Coll.
Long Beach City Coll.
Los Angeles Trade-Tech. Coll.
Peralta Junior Coll. Dist.
San Francisco, City Coll. of

COLORADO
Denver, U. of

FLORIDA
Daytona Beach Junior Coll.
Florida State U.
Florida, U. of
Miami-Dade Junior Coll.
Palm Beach Junior Coll.
St. Petersburg Junior Coll.

GEORGIA
Georgia Coll.

ILLINOIS
Illinois, U. of

INDIANA
Indiana Northern U.
Indiana U.
Purdue U.

IOWA
Iowa State U.

KANSAS
Kansas State U.

KENTUCKY
Berea Coll.

LOUISIANA
Southwestern Louisiana, U. of

MAINE
Maine, U. of

MARYLAND
Maryland, U. of

MASSACHUSETTS
Boston U.
Endicott Jr. Coll.
Massachusetts, U. of
Regis Coll.
Simmons Coll.

MICHIGAN
Albion Coll.
Michigan State U.

Wayne State U.
Western Michigan U.

MONTANA
Montana State U.

NEBRASKA
Nebraska, U. of

NEW HAMPSHIRE
New Hampshire, U. of

NEW JERSEY
Fairleigh Dickinson U.

NEW MEXICO
Eastern New Mexico U.
New Mexico Highlands
New Mexico State U.
New Mexico, U. of
Western New Mexico U.

NEW YORK
Brooklyn Coll.
City Coll.
Cornell
Erie County Tech. Inst.
Hunter Coll.
New York City Comm. Coll.
New York U.
Paul Smith's Coll.
Pratt
Rochester Inst. of Tech.
State U. Agric. and Tech. at Canton, Cobleskill, Delhi, Morrisville
Sullivan County Comm. Coll.
Syracuse U.
Westchester Community Coll.

NORTH DAKOTA
North Dakota, U. of

OHIO
Cincinnati, U. of
Ohio State U.
Ohio U.
Western Reserve U.

OKLAHOMA
Oklahoma State U.
Oklahoma, U. of

OREGON
Oregon State U.

PENNSYLVANIA
Drexel Inst. of Tech.
Margaret Morrison Carnegie Coll.
Pennsylvania State U.
Pittsburgh, U. of
Temple U.

SOUTH CAROLINA
South Carolina State Coll.
Winthrop Coll.

SOUTH DAKOTA
South Dakota State U.

TEXAS
Arlington State Coll.
Houston, U. of
North Texas State Coll.
Prairie View Agric. and Mech. Coll.
Texas Tech. Coll.
Texas, U. of

UTAH
Utah State U.
Utah, U. of

VIRGINIA
Hampton Inst.
Madison Coll.
Radford Coll.
Virginia Polytechnic Inst.
Virginia State Coll.

WASHINGTON
Clark Coll.
Washington State U.
Washington, U. of

WISCONSIN
Milwaukee Inst. of Tech.
Stout State U.
Wisconsin, U. of

COURSE AREA OR TITIE	Michigan State Un Undergraduate Bac Degree in Hotel nd Restaurant Admin	University of Dve Undergraduate Bac Degree in Hotel nd Restaurant Admin	Iowa State Univesi Undergraduate Bac Degree in Hotel nd Restaurant Admin	Florida State Unv Undergraduate Bac Degree in Hotel nd Restaurant Admin	Kansas State Uni Undergraduate Ba Degree in Hotel nd Restaurant Admin	Univ. of Massachu Undergraduate Bac Degree in Hotel nd Restaurant Admin	Univ. of New Hamp Undergraduate Bac Degree in Hotel nd Restaurant Admin
Accounting , Inc Hotel & Rest Acct.	10 QH	10 QH	7 QH	6 H	8 H	6 H	9 H
Agricultural Economics or Home Economics			6 QH			3 H	3 H
Bacteriology and Chemistry	4 QH		5 QH		13 H	9 H	8 H
Business and Hotel Law	8 QH	5 QH	3 QH	6 H	3 H	3 H	
Business Math	4 QH	10 QH	2-5 QH	6 H		12 H	6H
Business writing and English, Speech	8 QH	15 QH	12 QH	6 H	8 H	14 H	12 H
Dairy Products	5 QH						
Economics	8 QH	10 QH	9 QH	3 H	3 H	3 H	6 H
Food and Lodging Merchandising	5 QH	5 QH			8 H	4 H	3 H
Food Management and Purchasing	9 QH	5 QH	6 QH	3 H	6 H		6 H
Food Preparation	4 QH	5 QH			2 H	3 H	3 H

COURSE AREA OR TITLE	Michigan State Uni Undergraduate Sch Degree in Hote an Restaurant Admi.	University of ow Undergraduate Sch Degree in Hotel an Restaurant Admi.	Iowa State Univers Undergraduate Sch Degree In Hotel an Restaurant Admi.	Florida State Uni Undergraduate Sch Degree in Hotel Restaurant Admi.	Kansas State Univ Undergraduate Sch Degree in Hotel an Restaurant Admi.	Univ. of Massachu Undergraduate Sch Degree in Hotel an Restaurant Admi.	Univ. of New Hamp Undergraduate Sch Degree in Hotel an Restaurant Admi,
Food Production	15 QH	5 QH	4 QH		6 H	3 H	
General Electives	12-13 QH	35 QH	9 QH	16-21 H			
History				6 H			6 H
Humanities & Social Science		30 QH	24 QH	12-24 H	13 H	9 H	15 H
Institutional Management	4 QH	10 QH	10 QH	3 H	3 H	3 H	3 H
Internship or Specialized Work Experience	800 Hrs	900 Hrs	6 Mos Advised	6 Mos Advised	9 Mos Advised	6 Mos Req	6 Mos Req
Lodging Management	5 QH	5 QH	4 QH		2 H	9 H	6 H
Meats, Poultry, & Fish	6 QH		8 QH		2 H	3 H	
Nutrition for Man	3 QH		12 QH	3 H	2 H	3 H	
Organization and Administration	4 QH	5 QH	3 QH	6 H	9 H	3 H	
Physical Education &/or Military Science			6 QH	3 H	4 H	2 H	11 H

UNIVERSITY OR COLLEGE / COURSE AREA OR TITLE	Michigan State Univ Undergraduate Bchr Degree in Hotel nd Restaurant Admin	University of Dyc Undergraduate Bchr Degree in Hotel nd Restaurant Admin	Iowa State Universi Undergraduate Bchr Degree in Hotel nd Restaurant Admin	Florida State Univ Undergraduate Bac Degree in Hotel nd Restaurant Admin	Kansas State Univ Undergraduate Bac Degree in Hotel nd Restaurant Admin	Univ. of Massachus Undergraduate Bac Degree in Hotel nd Restaurant Admin	Univ. of New Hamp Undergraduate Bac Degree in Hotel nd Restaurant Admin
Psychology	4 QH		3 QH	3 H	6 H	3 H	
Retail Advertising and Promotion	3 QH	5 QH	7 QH		4 H		2 H
Science		10 QH	18-21 QH	10-16 H	8 H	6 H	6 H
Service Equip., Maint., and Eng. Problems	10 QH	5 QH	7 QH		3 H	3 H	9 H
Service Industry Finance	4 QH			6 H		6 H	
Statistics	4 QH	5 QH		3 H			
Additional Credit hours in areas Denoted (*)		30 QH	39-41 QH	24 H	14-15 H	18 H	12 H
Catering		*				*	*
Food Production		*		*		*	*
Hotel & Restaurant Accounting		*				*	*
Hotel & Restaurant Mgmt		*	*	*	*	*	*

COURSE AREA OR TITLE / COURSES	Michigan State Univ. Undergraduate Ad. Degree in Hotel & Rest. Adm.	University of Mass. Undergraduate Ad. Degree in Hotel & Rest. Adm.	Iowa State Univ. Undergraduate Ad. Degree in Hotel & Rest. Adm.	Florida State Univ. Undergraduate Ad. Degree in Hotel & Rest. Adm.	Kansas State Univ. Undergraduate Ad. Degree in Hotel & Rest. Adm.	Univ. of Massachu. Undergraduate Ad. Degree in Hotel & Rest. Adm.	Univ. of New Hamp. Undergraduate Ad. Degree in Hotel & Rest. Adm.
Institutional Management. Maint. and Eng. Problems		*		*			*
Institutional Management Purch. and Sales		*				*	*
Institutional Work Method Analysis		*		*		*	
Interior Design		*					

SECTION (3)

COURSE AREA OR TITLE / COLLEGE	Michigan St... Graduate Ma... Degree in Hot... Restaurant Ad...	Cornell Univers... Graduate Mater... Degree in Hot... Restaurant Ad...
Administrative Control	4 H	2 H
Administrative Policy	4 H	3 H
Administrative Research Methods	5 H	
Administrative Theory	6 H	
Business Law		6 H
Communications		3 H
Economics	6 H	
Economic Implications of Tourism	3 H	3 H
Facilities Programming	4 H	3 H
Financial Management	4 H	5 H
General Insurance		3 H

COURSE AREA OR TITLE	Michigan State U Graduate Masters Degree in Hotel Restaurant Adm	Cornell University Graduate Masters Degree in Hotel Restaurant Adm
Instructional Methods in Business and Industry	3 H	
Lectures on Hotel Management		1 H
Merchandising	4 H	1 H
Policy formulation and organization	5 H	
Principles of City and Regional Plan.		3 H
Problems in Human Behavior		2 H
Problems of Service Indust	6 H	5 H
Seminars in Hotel Mgmt.		4 H
Thesis	Opt.	Yes

BIBLIOGRAPHY AND FOOTNOTES

1. Advanced Management Journal. The Society for Advancement of Management. New York. Vol. 3---33, 1965-1968.

2. American Association of Collegiate Schools of Business. Constitution Bylaws Accreditation Standards 1968-1969.

3. American Association of Collegiate Schools of Business. Members Officers Committees 1968-1969.

4. Andrews, Kenneth R. "Towards Professionalism in Business Management," Harvard Business Review, (March-April 1969) 40-60.

5. "Approach to Independant Study," New Dimensions in Higher Education, No. 13 (Washington, D.C.: U. S. Department of Health, Education, and Welfare, Office of Education, 1965.

6. Armstrong, D. E. "The Designing of a Curriculum," Collegiate News and Views, March 1966, pp. 7-11.

7. Baker, G. P. and Tyack D. B., Doctoral Programs in Business and Business Administration. Faculty Requirements and Standards in College Schools of Business, AACSB, 1955.

8. Baltzell, E. D. "Bell Telephone's Experiment in Education." Harpers, March 1955.

9. Bossard, J. H. S. and J. F. Dewhurst. University Education for Business. Harper and Row, New York, 1931.

10. Bowman, D. M. and Fillerup, F. M. Management: Organization and Planning. New York, 1963.

11. Brech, E. F. L. Management, Its Nature and Significance. New York, 1967.

12. Brubacher, J. S., A History of the Problems of Education. Mcgraw-Hill Book Company, New York. 1966.

13. Bulletin, General Catalogue, New York University 1957-58.

14. Bulletin, General Catalogue, Princeton University 1961-62.

15. Bulletin, General Catalogue, University of Michigan 1966-67.

16. Chronicle of Higher Education, The. Editorial Projects for Education Inc. Baltimore, Maryland. October 12, 1967 to April 21, 1969.

17. Clark, B. R., Educating the Expert Society. Chandler Publishing Company, San Francisco, 1962.

18. Clark, H. F. and H. S. Sloan, Classrooms in the Factories, 1958, pp. 11-12.

19. Constitution and Standards for Membership in the American Association of Collegiate Schools of Business, The.

20. Constitution Bylaws Accreditation Standards 1968-69. American Association of Collegiate Schools of Business. St. Louis, Missouri.

21. Dale, Ernest. Readings in Management: Landmarks and New Frontiers. New York, 1965.

22. Educating Tomorrow's Managers (New York: The Committee for Economic Development, October 1964.)

23. Engstrom, Dr. Elmer W., Chairman of the Executive Committee Radio Corporation of America; Higher Education and Business Management. Advanced Management Journal, April 1967.

24. Enke, Stephen. Defense Management. New Jersey, 1967.

25. Forrester, J. W. Management and Management Science, MIT School of Industrial Management Memorandum D-46, 1 June 1959, p.1.

26. Garner, Paul, "Management Education in the United States," Alabama Business, Bureau of Business Research, School of Commerce and Business Administration, University of Alabama, January 15, 1965.

27. Gerber, Austin J. and Marrah, George L. "How our Key Executives have been educated," Harvard Business Review, (Feb 1969) 51-55.

28. Given, W. B. Jr., "The Engineer Goes into Management," Harvard Business Review. January-February 1955, pp. 43-52.

29. Gordon, Paul J. "Administrative Strategy for a Graduate School of Administration," Summary Proceeding of the Western Political Association, June 1968, pp. 51-57.

30. Gordon, Robert Aaron and James Edwin Howell. Higher Education for Business. Columbia University Press. 1959

31. Graves, W. B., Public Administration in a Democratic Society, D. C. Heath and Company, Boston, 1950.

32. Hanika, F. "Management as a University Discipline" Harvard Business Review, June 1968, 3 16.

33. Hart, D. J., Business in a Dynamic Society, MacMillan Co., New York, 1962-63.

34. Harvard University Bulletin 1967-68.

35. Heller, Frank A. "The Role of Management in Economic Development," Summary Proceedings of the Western Political Science Association. June 1960, 63-69.

36. Higher Education and National Affairs. American Council on Education. Washington, D. C. August 27, 1965 to April 25, 1969.

37. Kahn, Herman and Anthony J. Wiener, The Year 2000. New York, 1967.

38. Koontz, Harold, Toward a Unified Theory of Management. McGraw-Hill Book Company, New York, 1968.

39. Koontz, Harold and Cyril O'Donnell, Management: A Book of Readings. New York, 1964.

40. Koontz, Harold and Cycil O'Donnell, Principles of Management. (Fourth Edition) McGraw-Hill Book Co., New York, 1968.

41. Koontz, Harold and Cycil O'Donnell, Readings in Management. New York, 1959.

42. Kozelka, R. L., Professional Education for Business, 1954, pp. 117-118.

43. Leavitt, Harold J. and Whisler, Thomas L., "Management in the 1980's Harvard Business Review, November-December 1958, pp. 79-86.

44. Lockley, Lawrence C., "The Small Business Executive Evaluates Business Education," School of Business, University of Santa Clara, 1962.

45. Maier, Norman R. F., Allen R. Solem, and Ayesha A. Maier. Supervisory and Executive Development. John Wiley and Sons Inc., New York, 1957.

46. Management 2000, MacMillan Co., New York, 1968.

47. March, James G., Handbook of Organizations. Chicago, 1964.

48. McLarney, William J., Management Training-Cases and Principles. (Third Edition), Richard D. Irwin Inc., Homewood, Ill., 1959.

49. Meihurt, Jayne A., "Management Science and the Teaching of Management." Management Science, Vol. 15, No. 6, January1969.

50. Learned, T., D. Ulrich, and R. Niedenbach, Business Policy and its Environment, New York, 1966.

51. National Industrial Conference Board; Executive Development Courses in Universities (Studies in Personnel Policy No. 160, 1957), p. 5.

52. Newman, William H., The Process of Management. New Jersey, 1961.

53. Newman, W. H. and Logan, J. P., Business Policies and Management, Ohio, 1959.

54. Pfiffner, John M. and R. V. Presthus, Public Administration, The Ronald Press Company, New York, 1956.

55. Pierson, Frank C. and others, The Education of American Businessmen McGraw-Hill Book Company, New York, 1959.

56. Raia, Anthony P., "A Study of the Educational Value of Management Games," The Journal of Business, July 1966 (39), pp. 339-52.

57. Revans, R. W., "The Management Apprentice," Harvard Business Review, June 1960, 29-42.

58. Roethlisberger, F. J., Management and Morale. Harvard University Press, 1956.

59. Schoderbek, P. P., "Prologue to the Future," Management Systems, John Wiley and Sones, Inc., New York, 1968.

60. Singletary, Otis A., American Universities and Colleges, Tenth Edition, American Council on Education, Washington, D.C., 1956.

61. Smith, Elliot D. and others, "Education for Professional Responsibility," Carnegie Press, Carnegie Institute of Technology, Pittsburgh, 1948.

62. Smith, W. O. Lester, Education -- An Introductory Survey. Penguin Book Inc. Baltimore, Maryland, 1962.

63. Steigerwalt, A. K., "Toward an Ideal Undergraduate Curriculum in Business Administration," Educational Record, Vol. 49, No. 1, pp. 22-33.

64. Stephenson, T. E., "The Longevity of Classical Theory," Summary Proceedings of the Western Political Science Association, June 1968, pp. 77-83.

65. "Study of Public Administration, The", Political Science Quarterly, Vol 56, 1941, 481.

66. Teele, Stanley F. and John F. Chapman, "Education for Business," University of Toronto Quarterly, Vol 26, July 1957, pp. 542-543.

67. Wallis, W. Allen, "The University and Development of Management Knowledge," Toward a Theory of Management (Koontz, Harold--- Editor), McGraw-Hill Book Company, New York, 1964, pp. 204-205.

68. Webb, Leicester, The Control of Education in New Zealand, New Zealand Council for Education Research, Wellington, 1937.

69. Weimer, Arthur M., Introduction to Business, A Management Approach, Illinois, 1955.

70. Welter, Rush, Popular Education and Democratic Thought in America, Columbia University Press, New York, 1962.

71. White, Leonard D., Introduction to the Study of Public Administration, The MacMillan Company, New York, 1954.

72. Vance, Jack D., "An Executive Looks at Perspective - 31,000 Feet Up," California Management Review, January 1960, pp3-5.

MILITARY MANAGEMENT EDUCATION

A STUDY PRESENTED TO

DOCTOR M. J. STECKLER

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MASTER OF SCIENCE IN MANAGEMENT

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by

CDR John A. Strand, USN
LCDR James E. Law, USN
LCDR Nordean T. Hill, USN
LT Floyd E. Bennett, MSC, USN

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CHAPTER II

MILITARY MANAGEMENT EDUCATION

Introduction

The United States Navy is one of the largest corporate structures in the world. Its assets far exceed those of the well known industrial giants such as Standard Oil of New Jersey, General Motors, General Electric and U. S. Steel. The total manpower employed by the Naval Service, military and civilian, also exceeds that of any of the above corporations.[1] As "stockholders" of this vast military operational and industrial empire,

> The citizens of the United States have entrusted to the Navy tremendous resources of men, money, material and facilities. The Department of the Navy operates shipyards, hospitals, railroads, research laboratories, supoly depots, maintenance and assembly installations, construction facilities, printing plants, and many other industrial and commercial type activities. The Military Sea Transportation Service, operated by the Navy, for the Department of the Defense is the largest sea transportation service of the world. The primary purpose of these activities is to support the operating forces of the Navy. The resources and materials used by the Navy in conducting its operations include almost every kind of material and commodity known to man.[2]

Managing this "super conglomerate" are the thousands of Navy and Marine Corps officers whose managerial skills are primarily developed subsequent to their entry into the Naval Service. In addition, unlike civilian industrial giants, the Navy cannot recruit qualified managers for top management positions from outside sources. Due to its rank structure, recruiting, and promotional policies, etc., the Navy selects its managers for lower, middle and top management positions according to rank and seniority from available experienced, trained, and educated officer personnel. It seems reasonable to assume that this enormous and diverse organization would focus its primary attention and efforts on the educational needs of its management groups. If this is the case, how are these needs expressed? What are they?

The purpose of this chapter of the study is to discuss the results of

an investigation into the needs of the Naval Service for the management education of officer personnel. The first section addresses the topical question: How does the military experience and express its needs for management education? The topical question was approached through three research questions the answers to which are supplied in three separate parts of the section. The questions were:

a. What interest lies behind military management education, either expressed or implied?

b. What management billets are established?

c. How are current requirements for management education billets determined?

The second section addresses the topical question: What does the Naval Service express its needs to be in management education? This question was approached through two research questions. The questions were:

a. What specific subject areas have been advocated?

b. What criteria was used to establish the need for specific subject areas?

The answers to the above questions are provided in the text that follows. We proceed to section No. 1.

SECTION I

HOW DOES THE MILITARY EXPERIENCE AND EXPRESS ITS NEEDS FOR MANAGEMENT EDUCATION?

To Walk on Water

Nearly 200 years ago, a famous American Revolutionary naval officer named John Paul Jones wrote the "Code of a Naval Officer." This code is currently displayed by various means throughout many buildings and ships of the U. S. Navy. Its applicability to the modern Naval Service, however, is somewhat limited by the vast changes that have occurred since the days of John Paul....Nevertheless, among other things, Captain Jones did address the subject of education for the naval officer. To quote in part:

> It is by no means, enough that an officer of the Navy should be a capable mariner. He must be that, of course, but also a great deal more. He should be, as well, a gentleman of liberal education, refined manner, punctilious courtesy, and the nicest sense of personal humor. He should not only be able to express himself clearly and with force in his own language both with tongue and pen, but he should also be versed in French and Spanish.[3]

Aside from the consideration that it might be better for the modern naval officer to be versed in Russian and Chinese, it is significant to note that the naval officer community is now comprised of a wide variety of specialists and subspecialists who operate or perform in their specialty on land, in the air, on the sea or under the sea. A "generalist" or all-around-type of naval officer neither exists nor is desired.

> We tend to associate the term "generalist" with career pattern - the man who has done everything. There is no such man. The facets of naval warfare are so many and varied today that no officer can have firsthand experience in each during a twenty-five to thirty-five year career. Furthermore, the officer whose record shows a series of professionally unrelated tours may be a drifter without experience in any particular area which put his service in demand.[4]

Some naval officers are primarily shore-based and are merely ship-riders when deployed at sea. They never become a "capable mariner." These include members of the restricted line, staff officers, and some of the

unrestricted line officers with designated subspecialties in weapons engineering, ship engineering, material management, intelligence, communications, etc.[5] The extent to which the latter are utilized in their subspecialty depends on the demand for officer services and skills in the specific subspecialty area.

The Marine Corps has officer specialists similar to the restricted line and staff corps officers in the Navy. However, the majority of Marine officers are considered to be "unrestricted." These unrestricted officers are given designated subspecialties like their Navy counterparts. Hence, they too may serve a number of tours in subspecialty-type billets as a result of prior education or experience in weapons engineering, material management, personnel, etc., thus departing from a normal unrestricted career pattern.

Whether he is a member of the Navy of Marine Corps, an officer does need a "liberal education" as is proferred in John Paul Jones' code. In the sense that education is essential to support his specialty or subspecialty and enhance his professional development in general, each officer requires a "liberal education" to provide him with the technical and professional qualifications needed in our modern Navy. In discussing such qualifications, the Navy Officer Careers Handbook notes that:

> From a wide variety of officer occupations found in our modern Navy, it is clear that each, whether it be line or staff, requires its own particular combination of specific qualifications. What it takes to command a Polaris submarine is different from the knowledge, skills and experience needed to coordinate an amphibious landing. A jet fighter squadron officer needs skills different from those of the naval engineering officer specializing in nuclear propulsion. The duties and assignments of the Naval Attache in Paris are considerably different from those of a meteorologist in Antartica.
>
> Yet each of the officers performing such varied duties is alike in many respects. Each, from the time he dons his ensign

> stripe, is a manager, responsible for getting things done through the people - the enlisted and civilian personnel - he leads. As a leader, he is responsible not only for the direction of human effort in his organization, but also for property and human lives. As he is promoted up the career ladder, he must be a planner and an able executive, with full responsibility for thousands of individuals and millions of dollars worth of material, ships and facilities. He may be an industrialist, capable of supervising and contracting for the production of highly technical equipment. He must have the skills of the comptroller managing the budget and the fiscal affairs entrusted to him. Representing his country at home and abroad, he is always a diplomat. And throughout his career, while he is ever learning as a student, he is always a teacher, training those under him.[6]

As indicated above, the qualifications desired in a naval officer appear to be quite demanding. After a tour in Washington, D. C., where hectic daily duties include one crisis after another involving the highest echelons of military organizations, the Department of Defense and the Federal Government, it has been said that another qualification should be added, - viz. to be able "to walk on water!" Nevertheless, it is most significant to observe that, regardless of specialty, subspecialty, line or staff, etc., each and every officer of the Naval Service is, in fact, a manager. This fact is further recognized, if not emphasized, on the Fitness Report forms for both Navy and Marine officers where an evaluation mark in management is solicited from reporting seniors. (See Appendix A) Since the highest calibre of performance is desired at all levels of the rank structure, one would assume that the Navy is also desirous of providing management education and training for its officer personnel. Apparently, this is the case. Subsequent to a review of management of the Department of the Navy in December 1962, an Advisory Committee to the Secretary of the Navy recommended:

> That the Secretary of the Navy issue a policy letter and take such action as necessary to emphasize:
>
> a. The necessity for all naval officers to develop a subspecialty.

b. The need for more naval officers in the engineering/scientific fields.
c. The importance of management training and education for both unrestricted line and specialist naval officers.....[7]

It is worthy of note, that this expression of interest in management education, etc., was issued more than six years after the Navy Management School was established as an additional component of the Naval Postgraduate School in Monterey, California.[8] The establishment of this school in itself was an expression of the Navy's interest in management education, but apparently sufficient interest was still lacking, particularly with respect to promotion potential. In fact, a study of the selections of Commanders to Captains in fiscal years 1960-62 for unrestricted line officers, including aviators, revealed that the Naval Academy graduate reduced his promotion potential by attending graduate school.[9] Some courses of study which were noted as apparently detrimental to the career of an unrestricted line aviator in that time frame were: Comptrollership, Engineering Electronics, Management, Meteorology, and Intelligence.[10]

Fortunately, times have changed, and the interest in management education has waxed stronger. A directive issued from the Office of the Secretary of the Navy in 1964 established the Secretary's policy with regard to education and training in engineering/scientific and management fields for naval officers and career civilian personnel assigned to the Department of the Navy. (See Appendix B) In addition to emphasizing the desired objectives, the directive defined a plan of action which included a provision for:

> Insuring that selection boards are informed of the needs of the service in the engineering/scientific, managerial and operational specialties and briefed accordingly.[11]

It also required that Commanders of naval units insure that:

> Officers and career civilians are encouraged and given the opportunity to advance their professional careers by undertaking education and training in the engineering/scientific and management fields.[12]

With this display of interest and support from the top management of the U. S. Navy, the program for management education started on the upswing. The past several years have shown that this interest has generated increased interest and support throughout the Naval Establishment and resulted in an expansion of management education programs. The U. S. Naval Academy launched a new six course minor program in management, and the first year-group to graduate under this new program was the class of 1968. How did the midshipmen react to this new offering? At the Naval Academy,

> The most popular of the 20 minor programs available is the minor in management. Starting with a knowledge of human differences, the midshipman is made aware that in today's Navy, an officer must not only be a good leader, but an effective one as well.[13]

At the Naval Postgraduate School, Monterey, the enrollment in the Management curriculum has been increased during the past few years. The 1969-1970 student input will be approximately 45% greater than the previous year.[14] This is considered to be another current indication of the increasing interest in management education.

With the advent of Navy top management's backing and support and the subsequent increased interest and emphasis on management education, greater numbers of officers in the Naval Service should be better prepared to face the management tasks in future tours, including those in Washington, D. C. Some may even feel able "to walk on water!"

To Wrestle A Giant

Since the latter days of World War II and the advent of the atom bomb,

rapidly advancing technology has perpetuated the need for more effective management. Ideas for new products, including military weapons, are continuously pushing the state of the art in every technical field; and with the accelerating technology, the lifespan of each generation of products becomes shorter in spite of increasing improvements. The design, development and production of a complex modern weapons system absorbs ever-increasing time and costs, necessitating effective management in order to minimize the risk of expending resources in a wasteful or unwise fashion.

The current Defense Department budget of almost $80 billion helps to feed a giant military-industrial complex, which has recently exacted harsh attack from civilian leaders and publishers:

> Not only are military motives questioned, but military competence as well. The defense complex is indicted for being unable to develop weapons that work well enough, wasting money needed for civilian purposes, giving bad and dangerous advice to the Commander in Chief, poor planning and worse execution in Viet Nam.[15]

But this attack from sources external to the Defense Establishment was long preceded by dissention from within, which evolved from challenged military competence. As Vice Admiral John T. Hayward, USN, (Ret.) has observed:

> Especially since 1961, the military have had a difficult time. The image of the so-called "whiz kids" and the general degradation of the views of our armed forces leaders has been all too apparent. It was perfectly clear to all concerned that if the military were to take their rightful place in the scheme of things they had not only to be better educated themselves in all areas; but, also better educate others with whom they would deal on just how broad and deep their knowledge has become.[16]

While President of the Naval War College in 1967, Admiral Hayward stated:

> We must educate officers in the technique of modern management to cope with present-day realities in the Department of Defense if the Navy is to influence its own future and the security of our nation.[17]

In an article written in 1966 which discussed the education of future naval officers, another need for management qualifications by naval officers involved in government and business affairs was offered by Rear Admiral Robert W. McNitt, USN, who has been serving as the Superintendent of the Naval Postgraduate School since 1967:

> There is, however, one area in which the naval officer of today and tomorrow must be qualified as his predecessors did not need to be, and that is management. Nowadays, the Navy has a closer association with civil-government and business than it ever had before, and its representatives must understand the operation of those elements of society and must be able to communicate with them intelligently. Furthermore, many naval officers will be responsible for the management of important parts of the shore establishment, requiring quite different skills from those required by command at sea.[18]

In the same article, Admiral McNitt further stated:

> Future naval officers will be expected to have a more thorough technical background, be better managers, and at the same time possess a better grasp of the humanities than the officer of today finds adequate.[19]

In recognizing the ever-increasing complexities of military management throughout the Defense Department and directing attention towards the future, the Marine Corps conducted a long range study in late 1966 for all special education requirements in the 1976 to 1985 time frame which included a special section devoted to "Advances in Management." Part of this section noted that:

> The administrative processes have become more complex and managerial functions have expanded in recent years. Professionalism is expressing itself in many ways including: the management of human resources; policy and decision making; financial administration; materials and logistics management; and the management of systems, procedures and operations associated with automation, computers and integrated information systems; and important top level assignments of Marine Officers to positions with other military services and offices of the U. S. Government... It is expected that the basic trends in management which have recently developed will become more prevalent in the future along with new developments which are currently either in the incipient stages or non-detectable.[20]

For an example of the increasing complexities in administrative processes and managerial functions, one can briefly examine the Project Manager system currently used throughout the military-industrial complex as related to weapons system acquisition programs. Such programs for the acquisition of major weapons systems (aircraft, missiles, ships, tanks, etc.) have become so vast, costly, demanding and interservice related that it is not considered feasible to assign the total responsibility for program accomplishment to a single functional organization.

The Project Manager system permits centralized management of such programs under the primary direction of one man, the designated Project Manager. He exercises executive authority over planning, directing and controlling the definition, development and production of the complete weapons system and over the allocation and use of assigned fiscal resources. His authority cuts across functional organizational lines in acquiring the advice and services of the functional groups assigned to support his project. Though the Project Manager system is not a recent innovation in the Military Establishment, the concept is now more widely applied to weapons systems development and production projects throughout the military-industrial system and within the Navy itself. Such projects are being placed under project managers in the Navy if they:

> Carry an urgent priority, or
> Require research and development expenditures in excess of twenty-five million dollars, or
> Require production expenditures of a hundred million dollars, or
> Are critical to the military posture, or
> Are exceptionally complex technically or administratively.[21]

It should be reasonably apparent from the above information that the Project Manager system must be supported with officer personnel who are adequately educated, trained and experienced in management. To quote Captain J. T. Cockrill, USN, a Project Manager in the Naval Air Systems

Command:

> In the exercise of executive authority over the expenditures of large sums of money involved in the acquisition of modern weapons systems, a project manager must be competent in the use of the most effective methods and techniques of modern management.[22]

He further states that:

> The Project Manager must have a broad experience in the technology fundamental to his project, he must also be experienced in development and production, but most importantly, he must be a proficient manager.[23]

Some of the management tools, techniques, etc., used in project management and referred to by Captain Cockrill include: cost effective analysis, budgeting, contract development, Programs Evaluation and Review Techniques (PERT), value engineering, configuration control, data control, documentation control, accounting practices, etc. The acquisition of knowledge and skills related to these items is possible through management education. Thus, the Naval Service should consider providing its officers and potential project managers with adequate management education in support of the important and enlarging Project Manager system. Captain Cockrill emphasizes the need for support of project management by stating:

> This intensified concept, now accepted, must receive the enthusiastic support of the entire Naval Establishment. It provides the means by which the Navy can most effectively gain approval for necessary equipment acquisition and can most promptly deliver to the operating forces improved weapons systems, developed to the point that they meaningfully enhance combat capability.[24]

With the eyes of our nation focussed on the multibillion dollar consuming giant of a military-industrial system, the Navy must indeed provide this "enthusiastic support." Providing appropriate management education for its project managers would appear to be a step in the right direction in "wrestling" with this giant.

To Reach A Star

Most career officers of the Naval Service aspire to reach flag or general rank, even though the selection opportunity to that level from Captain, USN, or Colonel, USMC is approximately two percent. Significant to such aspirants is the criteria established for selection to that coveted level. These criteria serve as the means by which their careers may be planned and guided. In 1963, the Secretary of the Navy, the Honorable Fred Korth, convened a board of six Admirals and one civilian to examine and recommend criteria for selection to Flag Rank in the Navy.[25] Though the results of the board's deliberations did not pinpoint management education per se as a step on the stairway to the stars, the final report included some noteworthy remarks emphasizing the need for development of management abilities.

Headed by Vice Admiral A. M. Pride, USN (Ret.), the "Pride Board" found it essential to address the terminology of specialization in order to lessen the chance of its findings being misunderstood. The board noted that:

> Every naval officer has a specialty. For the unrestricted line this specialty is executive management in the naval establishment as a whole.....The Line Flag Officer must ultimately direct the efforts of the Navy.
>
> For the restricted line and the limited duty categories the specialty is management in the field to which he is normally restricted. Examples: engineering duty, public information, aviation maintenance, etc. For the various staff corps it is the primary field of that corps (supply, medical, det.).[26]

In addressing the extent to which future flag officers should be trained in science, engineering, management, etc., the Pride Board made a comparison of skills required at various levels in industry with those required in the naval service. This was done by referring to an article by Robert

L. Katz entitled, "Skills of an Effective Administrator," published in the Harvard Business Review in 1955. The Board acknowledged three basic skills as "technical," "human" and "conceptual," which Katz proposed as basic to successful administration in industry and which the Board surmised to be also basic in successful naval administration. These skills were defined as follows:

> Technical skill involves specialized knowledge, analytical ability within that specialty and facility in the use of the tools and techniques of the specific discipline....[27]
>
> Human skill is the executive's ability to work effectively as a group member and to build cooperative effort within the team he leads.....
>
> Conceptual skill involves the ability to see the enterprise as a whole; it includes recognizing how the various functions of the organization depend on one another and how changes in any one part affect all the others; and it extends to visualizing the relationship of the individual business to the industry, the community, and the political, social and economic forces of the nation as a whole.[28]

The Board maintained that the technical skills were developed and exercised mainly in the ranks up to Commander, and that the human skill is always present but gains added emphasis in the middle ranks. "At this level formal courses in administration and management are offered at postgraduate schools and in the junior courses of service colleges."[29] It was then stated that emphasis shifts to conceptual skill at the Captain level and that at the very top positions (Admiral level), "the need for the broadest conceptual skills become overriding."[30]

How are these skills developed? The Board states that: "The Navy's educational programs now support the three types of skills at the appropriate career points."[31] Noting that the Board specifically mentioned the introduction of formal courses in administration and management at the Commander level, it implied that this kind of education helps to develop the conceptual skills which are most significant at the Captain and Admiral

levels. In concluding the report section on the extent to which future flag officers should be trained, the Pride Board made the following recommendations:

> Select, educate and train the numbers of officers in lower ranks to meet the Navy's requirements for special, professional, and technical qualifications at all levels, including flag rank.[32]

In providing direction to the boards selecting Navy Captains to flag rank, it is customary for the Secretary of the Navy to address the President of the Board in a letter containing guidance and criteria to be considered in the selection process. In recent years such letters have emphasized the importance of management abilities in addition to other skills.

In 1966, Secretary Nitze stated:

> What we desire is a broadly-based group of individuals who can provide from within their ranks brilliant operational command-at-sea, broad management leadership ashore or afloat which will clearly be recognized both within the Navy Department and the Department of Defense and also on the international scene.[33]

Again, in 1967, Secretary Nitze advised the President of the Flag Board:

> I am convinced that we require in our positions of highest responsibility, not only officers who can indeed lead, delegate and manage, but also those who combine that capacity with the talent and willingness to dig deeper into the fine grain of their most important problems in a sound analytical manner and who can teach their subordinates to practice these techniques.[34]

In 1968, Secretary of the Navy Paul R. Ignatius told the Flag Board President:

> The flag officers whom the Board selects this year will exercise leadership in a Navy which will be subject to complex and conflicting demands. Our nation is confronted with the need to allocate resources between urgent domestic requirements and the demands of national security. Technology will continue to advance and technical competition among the nations of the world and among weapons systems will grow sharper. The international situation is characterized by changing political relationships, a thrust for improved conditions in the under-developed nations,

and greater national consciousness. From these and other factors will come diverse problems for the Navy and Defense Department calling for an awareness of national problems in the exercise of military judgement, management expertise, and technological skills.[35]

Secretary Ignatius further stated:

Many of the broader criteria for selection, which I have discussed, are of recent origin because the knowledge upon which they depend is new. Those special technical and managerial skills that are important to the Navy also are greatly in demand in industry.[36]

Finally, to quote General David M. Shoup, retired Marine Corps Commandant and Medal of Honor winner:

The men who rise to the top of the military hierarchy have usually demonstrated their effectiveness as leaders, planners, and organization managers.[37]

Thus, it seems reasonably well established that before an officer of the Naval Service can don the stars of flag or general rank he must have acquired and demonstrated along the way skills in the area of management. One obvious means for the acquisition of such skills is through education in the field of management. From the point of view of this study as a whole, it was interesting to note that Secretary Ignatius acknowledged a similarity in the management skills demanded in both industry and the Navy.

Terminology

The research team adopted the following definitions which are applicable throughout:

1. Graduate Level Education. Formal instruction in a particular field of study above that normally leading to a baccalaureate degree and normally accepted as credit toward a higher degree in a civilian educational institution; or the equivalent instruction in a military school as determined by the Secretary of the Navy. Postgraduate education will be synonymous with Graduate Level Education.[38]

2. Specialty. The principal task or mission of an officer group (code category). While not clearly spelled out in any document, an unrestricted line officer's specialty is Naval Warfare and Command at Sea. The specialties of all other groups are indicated by the names of the groups, such as Engineering Duty, Intelligence, Medical Service Corps, Aeronautical Engineering Duty, etc.[39]

3. Specialist. An officer other than an unrestricted line officer, (includes officers designated for engineering duty, weapons engineering duty, meteorology duty, aeronautical engineering duty, etc.)[40]

4. Subspecialty. A particular field of naval endeavor, other than naval warfare and command at sea, or a significant qualification in one of these fields, obtained through a combination of formal education, functional training and practical experience. Broad areas of naval warfare and qualifications such as aviation or submarine duty are not subspecialties. Subspeciality, therefore, can be further described as a secondary career development field.[41]

5. Subspecialist. An officer qualified in one of the 14 subspecialty fields. This term applies only to an unrestricted line officer.[42]

6. Billet Identification. Unrestricted Line, Restricted Line, and Staff Corps officer billets which have specific requirements. These billets are identified by a code composed of four digits and a one letter suffix, (i.e. 1, 2, or 3). These four digit codes provide for the identification of broad billets in broad areas of naval endeavor and further provide for the identification of specific education and/or experience required within these broad areas by the letter suffix.[43] (Appendix C)

7. P - Code.

a. Unrestricted line officer subspecialty billet which requires an incumbent who has gained his qualifications through Navy sponsored graduate level education or approved equivalent in the indicated subspecialty area.

b. Restricted line of staff corps officer billet which requires an incumbent who has Navy sponsored graduate level education or an approved equivalent in the indicated field.[44]

8. E - Code. Unrestricted line officer subspecialty billet which requires an incumbent who has gained his qualification by baccalaureate level education and/or subspecialty area.[45]

9. O - Code. Unrestricted line officer who meets part of the criteria and is considered a potential subspecialist in the area designated.[46]

10. SEP. Special education program in the Marine Corps. Program designed to afford officers the minimum requisite education to meet billet requirements requiring certain advanced education.[47]

11. MOS. Marine "Military Occupational Specialty", it is the primary specialty equating to the Navy's warfare specialty or specialty corps designator.

12. Management Education Billets. Includes those billets in the area of financial management, business administration, personnel administration,

and material support management in the Navy and Marine Corps.

13. [illegible] Qualifications.

1 - Captain

2 - Commander

3 - Lieutenant Commander

4 - Lieutenant

14. Officer Billet Designator Code. A four digit number used to place officer billets in administrative categories and fields of primary naval qualifications.[48] (Appendix D)

15. Billet Identification "review authorities". Subspecialist area advisors and designator sponsors.

a. Designator Sponsor. Assigned on the basis of special direct interest, knowledge or technical competence with relation to the sponsored designator. The function of designator sponsors is concerned with matters of personnel procurement sources, training and special education, career development and other related matters. (Appendix E)

b. Subspecialty Area Advisors. The functions are those of advising the appropriate authorities concerning subspecialty billet requirements, qualitative criteria for identifying billets in areas of responsibility, qualitative criteria for identification of subspecialist, PG Curricula and billet descriptions within subspecialty areas of responsibility, as appropriate, and utilization of personnel.[49]

Unrestricted Line Subspecialty Areas.	Advisors.
Material Support Management	Chief of Naval Material
Personnel Management	Chief of Naval Personnel
Financial Management	Deputy Comptroller of the Navy

The Establishment of Billets.

The Navy's participation in the active subsidization of educational pursuits can be justified only on the basis of a need for knowledge unobtainable by other means. The Navy's needs are generally expressed as requirements. Thus, it is on the foundation of demonstrated requirements that officer education programs are constructed. Once these requirements are identified and properly validated, they are weighed against the capacity currently available to meet the identified requirement, and an educational program is outlined in detail. The first task in any educational planning system is therefore the determination of requirements.

What management education billets are currently established? In making reference to management education billets, the following definition shall apply: Management education billets will encompass those billets in the area of Material Support Management, Personnel Administration and Financial Management in the Navy and Marine Corps.

1. Material Support Management. Material Support Management relates to those phases of the Defense material procurement effort that are carried out with private industry for the Navy, and as assigned to the Navy, which pertain to all aspects of material procurement support, contract administration after award, contract consignment of equipment and services in support of the material logistic needs of the Navy and Marine Corps. The designated advisor is the Chief of Naval Material.[50] The established billets are:

NAVY BILLETS	
9800	Material Support Management
01	Business Administration
02	Management and Industrial Engineering

[illegible]

The billets identified as requiring unrestricted line incumbents with graduate level education are:[51]

Area	P-[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Business Admin.	9801	6			2	8
Management Industrial Eng.	9802		3			3
Navy Mgmt (Material Opt)	9803		3	3	2	8
Navy Mgmt (Economics Opt)	9804		3	3		6
Totals		6	9	6	4	25

Total P/S Coded Billets[52]

Designator & Grade	P-Coded 9800P	S-Coded 9800S	Total
UNRESTRICTED LINE			
1110/1	5	0	5
1100/2	1	1	2
1100/3	2	2	4
1100/4	2	0	2
1300/1	1	0	1
1300/2	8	3	11
1300/3	4	0	4
1300/4	2	0	2
Totals	25	6	31
RESTRICTED LINE			
1510/1	2	0	2

1510/2	8	0	8
1510/3	3	0	3
Totals	13	0	13
STAFF CORPS			
3100/1	106	0	106
3100/2	156	0	156
3100/3	88	0	88
3100/4	6	0	6
Totals	356	0	356

TOTAL - 400

MARINE CORPS BILLETS[53]

Rank	Total
Colonel	8
LT Colonel	10
Major	18
Captain	1
Total	37

2. Personnel Administration. Personnel Administration is that branch of naval endeavor involving the planning, research and administration of the procurement, selection, classification, distribution, education and training, performance, separation, welfare, and records of Naval personnel. The designated advisor is the Chief of Naval Personnel.[54] The established billets are:

NAVY BILLETS

9600	Personnel Management
01	Navy Management (Personnel Option)

The billets identified as requiring unrestricted line incumbents with graduate level education are:[55]

Area	P-Coded	CAPT	CDR	LCDR	LT	TOTAL
Personnel Administration	9601	22	32	10	4	68

Total -68

Total P/S Coded Billets[56]

Designator & Grade	P-Coded 9601P	S-Coded 9601S	Total
UNRESTRICTED LINE			
1100/1	12	12	24
1100/2	15	13	28
1100/3	6	1	7
1100/4	3	0	3
1300/1	10	10	20
1300/2	17	13	30
1300/3	4	1	5
1300/4	1	0	1
Totals	68	50	118
RESTRICTED LINE			
1610/1	2	0	2
1610/2	1	0	1
1610/3	1	0	1
Totals	4	0	4
STAFF CORPS			
3100/1	1	0	1
3100/2	1	0	1
Totals	2	0	2

Total - 124

MARINE CORPS BILLETS[57]

Rank		Total
Colonel		0
LT Colonel		2
Major		2
Captain		0
	Total	4

3. Financial Management. Financial Management is that phase of management concerned with planning, administration, and control or use of resources (property as well as funds) in monetary terms. The designated advisor is the Deputy Comptroller of the Navy.[58] The established billets are:

NAVY BILLETS

9400	Financial Management
01	Business Administration (Financial Option)
02	Financial Management
03	Navy Management (Financial Option)

Total P/S Coded Billets[59]

Designator & Grade	P-Coded 9400P	S-Coded 9400S	Total
UNRESTRICTED LINE			
1100/1	9	1	10
1100/2	12	0	12
1100/3	3	0	3
1100/4	1	0	1
1300/1	8	0	8
1300/2	9	0	9

1300/3	9	0	9
1300/4	1	0	1
Totals	53	1	54
RESTRICTED LINE			
1510/1	4	0	4
1510/2	2	0	2
1610/1	2	0	2
1610/2	3	0	3
Totals	11	0	11
STAFF CORPS			
3100/1	30	0	30
3100/2	65	1	66
3100/3	23	2	25
3100/4	1	0	1
5100/1	30	0	30
5100/2	64	0	64
5100/3	37	0	37
5100/4	5	0	5
Totals	255	3	258

Total - 323

MARINE CORPS BILLETS[60]

Rank	Total
Colonel	17
LT Colonel	11
Major	13
Captain	4
Total	45

In addition to the above subspecialized billets the Marine Corps has 86 necessary General Management billets. The totals for Navy and Marine Corps Management Education billets are:

Navy	787
Marine Corps	172

The Combs Board report of 1964 provides the basis for creation of subspecialty billets in the Navy today. Review of these subspecialty billets is a continuous process caused by frequent organizational changes and new requirements. The criteria used for the assessment of the needs of individual activities for specialized education and technical experience billets are "essentially" those of the Combs Board. (Appendix C)

There are, however, practical limitations on the numbers of billets that can be written requiring postgraduate education.[61] Although a P-Code assigned in an activity does not increase the manpower in the activity, it does generate a new requirement in a training activity. Therefore additional manpower is required in officer training. Because of career requirements in Naval Warfare/Staff/Technical specialties, the education and experience required for a subspecialty will ordinarily not be required below the rank of Lieutenant Commander. This reduces significantly the number of billets for which P and S codes are assignable. Finally, provision must be made for rotation to keep subspecialty billets filled. The Combs Board recommended, on the basis of Sea/Shore rotation practices, that the ratio of unrestricted line officers trained per subspecialty billet be:

Captain	2.0
Commander	2.5
LT Commander	2.5
Lieutenant	2.0

The Marine Corps has established a ratio of 2.4 for every billet requiring advanced management education.[62]

Determining Requirements

The current system for determining officer postgraduate education requirements stems from the findings of the Weakley-Daniel Board (1956). The Board attempted to found postgraduate educational planning on the basis of clearly defined billets. However, the billet analysis system has two basic weaknesses:

a. The initial billet listing was incomplete in that line officer requirements were almost completely ignored.

b. There was no standard criterion used in identifying billets requiring postgraduate education.

As a consequence of the latter consideration one reviewing authority will list every billet that exists while another, viewing the austere officer personnel situation, will list only those billets considered to be absolutely essential. The imbalance that results from such a system is apparent.[63]

In September of each year the Chief of Naval Operations (OP-01) forwards to each reviewing authority (Subspecialist area advisors and designator sponsors) listings of billets that require postgraduate education submitted from the previous year. Reviewing authorities audit billet listings to insure that requirements are realistic, consistent, and continuing. Changes are recommended after consultation with activity and designator sponsors. Requirements are then projected through the ensuing 5 years. These recommendations are forwarded to the Chief of Naval Operations not later than 1 December of each year. The Chief of Naval Operations reviews all recommendations. Approval of recommended billet identification is indicated by inclusion of the appropriate billet identifier in subsequent revisions of the manpower authorization and in the annual review billet listing. In September of the next year, the cycle is again repeated.[64]

The Marine Corps system for determining postgraduate education billets closely parallels that of the Navy.

Identification of Requirements

In terms of numbers and types of people to carry out the mission or aims of the organization, inclusing operation of the organization today and in the future, there exist an almost infinite number of ways to categorize "requirements." The language used to express "requirements" depends largely upon the particular needs and jargon of the organization. Generally speaking, requirements planning falls into two broad categories of approach:

a. Those organizations that were moving toward detailed description of requirements. This is the "atomized" approach which seeks to describe each identifiable element of a billet or job in terms of the seniority, experience, education, and required tenure of an incumbent, as well as describing the specific or specialized scope of knowledge considered requisite. The corollary of "requirements" is "limits" and the detailed description approach, in effect, imposes limits on the assignment of officers.

b. Those organizations that are moving away from the detailed description of requirements. That is, regrouping the "atomized" descriptions into larger shapes, using broader, general language and widening the limits imposed upon the assignment of officers.

The first, or detailed approach, has been popular with people involved in budget justification, curriculum writing, and direct program management in technical fields, while the second, or general approach, has been more popular with people involved in assignment of officers to specific jobs arranging demonstrable career patterns for officers.

All organizations have had elements of both the detailed and general descriptive procedures in their approaches. The "general" types are called:

"Career fields", "Career areas", "subspecialty areas", "special career fields", "secondary career fields", and the like, but the idea in each case is to apply a certain common descriptive level to requirements (billet descriptions) and resources (people). The "detailed" descriptive procedures have not been characterized by the requirement for equal utility in billet description and people description. Thus, several narrow "codes" might be used in conjunction to describe the requirements for one billet and conversely several single codes might apply individually and equally in the description of one person. Almost any system will work when it is applied and used by people who understand it.

SECTION II

WHAT DOES THE NAVAL SERVICE EXPRESS ITS NEEDS TO BE IN MANAGEMENT EDUCATION?

This section addresses the following two questions:

a. What specific subject areas have been advocated?

b. What criteria was used to establish the need for specific subject areas?

Since the Naval Postgraduate School is the primary source for providing management education to Naval and Marine Corps officers, it appeared to be the most likely prospect for study. Our method of approach was to utilize the school as a subject to see how the Navy made known its needs to the school and how the needs should be implemented. The following describes first how the system works and who the responsible people in it are.

Each curriculum at the school has a sponsor who provides the input of students for a particular curriculum. In addition, each Navy Bureau has an advisor who serves as the contact between the Bureau and the school in insuring that the appropriate subject material is being presented. In the case of the Management curriculum, the sponsor of the curriculum is the Chief of Naval Personnel. The Bureau's contacts at the school for curriculum content are the cognizant Curricular Officer and the Academic Associate (a member of the civilian faculty). These two persons are jointly responsible for:

> .....coordinating the elements of each curriculum within their program areas to include structure, course coverage, sequence, and emphasis in order to accomplish optimum instruction in each subject and achieve curriculum objectives. The ultimate responsibility for insuring that curricula meet the professional needs of the Navy rests with the cognizant Curricular Officer. Although coordinating and monitoring curricula elements are shared jointly with Curricular Officers, the ultimate responsibility for insuring that curricula meet acceptable academic standards rests with the cognizant Academic Associate. [65]

The Curricular Officers at the school and the Academic Associates of the faculty use three techniques of appraisal to monitor the curricula. These techniques are:

a. End of Course Questionaire. Questionaires are completed by students at the end of each course and analyzed jointly by the Curricular Officer and Academic Associate. If any deficiencies appear in the curriculum, changes are proposed.

b. Former Graduate Questionaires. On an annual basis, all curricular officers send out a questionaire to officers who graduated from one of their curricula three to six years prior. These questionaires request information as to:

1. the utility of their postgraduate curriculum in subsequent duty assignments;
2. whether their course of study was too long or too short, too early or too late in their naval career, generally satisfactory or unsatisfactory, should it have included field trips and industrial tours or not, etc.;
3. whether they did or did not have adequate undergraduate preparation prior to postgraduate study;
4. what additional areas should have been studied;
5. which courses were of most value in the performance of subsequent duties; of least value;
6. the influence postgraduate education had on their subsequent and anticipated naval career.

c. End of Course Journals. Instructors, at the end of each term, are requested to prepare a journal on each course taught. These journals contain such information as assignment sheets, instructions for laboratory work, copies of quizzes and examinations, grades given, etc. In addition, they are expected to make recommendations regarding any significant changes that should be made in the course. Cognizant Curricular Officers and Academic Associates

utilize the journals as another means by which the adequacy of the various courses for a given curriculum man be evaluated.[66]

In addition to the above means of checking, updating and improving the curricula, the Naval Postgraduate School on occasion appoints boards and committees to study curricula. In 1961 an Ad Hoc Postgraduate Curricula Board was appointed to review the curricula and make recommendations for improvements. In 1963, the Superintendent appointed a School Curriculum Advisory and Needs (SCAN) Committee to make an extensive review of the curricula. The SCAN teams were composed of qualified civilian and military members not presently associated with the Postgraduate School.[67] The latest action in this area occurred in 1967 when the Secretary of the Navy established the Board of Advisors to the Superintendent of the Naval Postgraduate School. The purpose of the Board was to advise and assist the Superintendent concerning the Naval Postgraduate Education Program. It was asked to assess the effectiveness with which the Naval Postgraduate School was accomplishing its mission.[68]

Recommendation of Specific Subject Areas

In reviewing the reports of the boards and committees it appeared to these researchers that no specific subject areas were recommended. The contents of all the reports examined appeared very general in nature. The following selection from the recommendations of the SCAN report of 1964 offered the only definitive recommendation found:

"Emphasis on quantitative methods for Management curriculum."[69]

While not listed in the reports, one sponsor originated request actually led to the creation of a new curriculum at the Naval Postgraduate School. In July 1962, the Chief of the Bureau of Supplies and Accounts requested a program in Computer Science: "to meet a vital and ever increasing need for

officers capable of assuming duties as head or assistant to the head of an organization responsible for the management control of, or actively engaged in, data processing computer operations."[70] After the initial establishment of the curriculum, the Chief of the Bureau of Supplies and Accounts "recommended that several of the mathematics and engineering courses be deleted in favor of additional courses in management, on the basis that, even though the organization he manages is a very specialized one, the Data Processing Officer's job is primarily one of management."[71] As a result certain advanced mathematics and electronics courses were deleted and replaced by courses in personnel administration, inventory and material management, and systems analysis.[72]

In the Management School Presentation to the Ad Hoc Postgraduate Curricula Board in 1961, it was stated that the Bureau of Supplies and Accounts had stipulated a need for officers with specialized knowledge and proficiency in marketing, transportation, inventory control and procurement, operations analysis in business, petroleum management and retailing.[73] In response to this Ad Hoc Postgraduate Curricula Board's report, the Chief of Naval Personnel stated:

> It is desired that all officers in the Management course develop an understanding of the fundamental skills and capabilities found in statistical methods and the ability to apply the techniques involved. This requires that a course in statistics based on the simpler concepts of mathematics and not requiring calculus as a prerequisite be developed and required of all students.[74]

Recommendations by Others

While the above cited examples contain some formal indications of what the Naval Service expects in management education, other examples of specific subject area recommendations have been cited by various military leaders.

RADM R. K. Wheeler, Assistant Comptroller of the Navy for Financial

Management, had the following to say:

> No longer can we completely functionalize the financial management skills and leave them to the Comptroller alone. All levels of management must develop and understand the functions of budgeting, systems analysis, cost analysis, the use of operations research techniques, the element of the supporting accounting system, etc. Only through the understanding and coordination of such skills will the manager be able to effectively carry out his mission, goals and objectives within the ever tightening budget constraints.[75]

Colonel Roscoe L. Barrett, Jr., USMC, assigned to the Fiscal Division Headquarters Marine Corps, stated:

> As late as the spring of 1965, a staff study on the subject of comptroller education in the Marine Corps concluded that while postgraduate level education for comptrollers was desirable, it was not mandatory. Between 1965 and 1968, the emergence of the Resources Management Systems concept and the initiation of Project PRIME made it obvious that financial management billets throughout the Marine Corps were becoming more and more "billets which must be filled by individuals who possess knowledge of a specific field of study to permit effective staff planning, coordination and command advisory functions. Such knowledge would include the capability to comprehend theories, principles, terminology, processes and techniques necessary for effective appraisal and evaluation or direction of complex programs."
>
> Fortunately, or perhaps inevitably, the very conditions which provided the impetus for the strong surge in requirements for "special education" in the financial management area, also applied to the general management areas. The introduction of Planning-Programming-Budgeting concepts in 1962 generated the first ripple which, with the follow-on of RMS, turned into a wave of requirements. (As an example of the growth, during FY 64 only one Marine officer, the author, was enrolled in the Management course at the Naval Postgraduate School at Monterey; today, approximately 30 Marine officers are enrolled in this curriculum.[76]

Dr. Howard O. Johnson, Assistant Director, Officer Education Division, Bureau of Naval Personnel, stated:

> With the increased popularity of postgraduate education and the ever expanding needs of the Navy, there has come a broadening of major fields of graduate study. Engineering, the physical sciences, and mathematics still dominate the Navy's offerings, but new and rapidly expanding programs in economics, management, journalism, foreign affairs and theology are showing gains in enrollment each year. Perhaps the greatest shift in emphasis has been in areas related to modern computers.[77]

LCDR Terence B. Sutherland, USN, U. S. Navy School of Naval Command and Staff, stated:

> The main thread of necessity which runs through all the concepts proposed above is that of training. Leadership training (taken in its usual context in the Navy) is not enough. Why should the Navy burden itself with yet another training requirement, that of increased emphasis on personnel management from a social and psychological point of view? To answer a question with a question, why then should one learn to program computers, maintain missiles, study communism and insurgency, use cost-effectiveness in planning? The answer to all of these questions is that to have knowledge and fail to use it is a self-defeating process. To have a resource as complex and adaptable as a human being and to fail to realize his full potential is to deny the great expectations of a great society.[78]

The above quotations from military leaders, while not exhaustive, do indicate their thinking on various aspects of management education needs. The implementation of these ideas; however, must come back to the system as described earlier for the Naval Postgraduate School.

The results of research and personal interviews with key personnel at the Naval Postgraduate School have established the following procedures for determining specific subject areas to be offered in management education. The Naval Postgraduate School itself initiates and advocates specific subject areas after informal liaison with sponsoring bureaus and agencies. The determination of specific courses is the result of intelligent speculation and interpretation of the specific needs of the Naval Service. Current trends in management philosophy are looked for, plans are made to incorporate the necessary subject areas into the curriculum, and recommendations are made to the sponsoring bureaus and agencies for final approval. The whole system is extremely flexible and informal and could be described as an attempt to stay one step ahead of the needs of the Naval Service.[79]

In concluding this section of the paper it appears appropriate to say that as a result of research and personal inquiry it has been established

that no clear cut formal statements have been issued by the Navy concerning the criteria and specific subject areas required for management education. The subject of management education has been over-exposed generally and almost everyone will agree that management education is needed in the Navy but, to date, no one has come forth with and outlined the requirements specifically concerning just which subject areas are needed.

Such were the findings. Very possibly information does exist concerning just which specific subject areas have been advocated for military management education. However, the authors of this paper were unable to discover any uniform direction advocating a specific discipline. A review of all committee reports concerning postgraduate education in the Navy failed to reveal any specifics. What was discovered was a growing realization that management apparently exists as a value rather than anything tangible. Management education is good and more management education is better, but just what constitutes a management education in the military is a very difficult question. The answer to this question remains for the military leaders of today to resolve.

A

(To be completed in **pen and ink** by reporting senior)

NAVPERS 1611/1 (2-68)
(formerly NAVPERS 310)

REPORT ON THE FITNESS OF OFFICERS

(Refer to BUPERSINST 1611 Series)

(Last, first, middle)	2. GRADE	3. DESIGNATOR	4. DATE OF RANK	5. FILE NUMBER

OR STATION (at which duty evaluated was performed)	7. DATE REPORTED THIS DUTY STATION

TION FOR REPORT	9. TYPE OF REPORT	10. PERIOD OF REPORT
RIODIC ☐ DETACHMENT OF REPORTING SENIOR ☐ DETACHMENT OF OFFICER	☐ REGULAR ☐ CONCURRENT ☐ SPECIAL	FROM: TO:

DUTIES: *(Identify PRIMARY and principal COLLATERAL duties assigned, indicating number of months assigned each during period of report - list Primary duties first. For reports based on other than "Close Observation" indicate after Primary duty the number of months duties assigned followed by the number of months duties were performed physically separated from the reporting senior, if applicable, (e.g. 6/4). Indicate inclusive date of periods of non-availability due to hospitalization, temporary additional duty, leave and travel between duty stations. Describe the demands, qualifications necessary, responsibilities, and conditions peculiar to any billet of an unusual nature and not understood by naval officers in general - append supplemental sheet for this purpose if space is inadequate.)*

EMPLOYMENT OF COMMAND (DEPARTMENT/DIVISION/UNIT) DURING PERIOD OF THIS REPORT: *(The setting in which officer displayed his abilities - Do NOT use initials, names, unusual or extreme abbreviations)*

13. GENERAL INSTRUCTIONS

(a) EVALUATIONS MADE IN THIS REPORT SHALL BE IN COMPARISON WITH OFFICERS OF THE SAME GRADE, COMPETITIVE CATEGORY (I.E., UNRESTRICTED LINE WITH UNRESTRICTED LINE, SUPPLY CORPS WITH SUPPLY CORPS, ETC.), AND APPROXIMATE TIME IN GRADE WHOM YOU HAVE KNOWN. A MARK IN THE HIGHEST MARKING BOX OF SECTION 18 (a) CONSTITUTES A NOMINATION FOR ACCELERATED PROMOTION AHEAD OF YEAR GROUP, OR FLAG SELECTION - SUCH A REPORT, IF NOT COMPLETED BY A FLAG OFFICER, MUST BE FORWARDED VIA THE NEXT SENIOR IN THE CHAIN OF COMMAND FOR REVIEW AND ENDORSEMENT ON SUPPLEMENTAL FORM NAVPERS 1611/5 (2-68).

(c) REPORTS ON CAPTAINS, IF NOT COMPLETED BY A FLAG OFFICER, MUST BE FORWARDED VIA THE FIRST FLAG OFFICER IN THE ADMINISTRATIVE CHAIN OF COMMAND (FOR REGULAR REPORTS), OR THE OPERATIONAL CHAIN OF COMMAND (FOR CONCURRENT REPORTS), FOR ENDORSEMENT AND COMMENT REGARDING FLAG POTENTIAL-USE SUPPLEMENTAL FORM NAVPERS 1611/5 (2-68)

tries on this report are based on which one of the following relationships?

☐ Close Observation ☐ Frequent Observation ☐ Infrequent Observation ☐ Records and Reports Only

FORMANCE OF DUTIES: *(Indicate evaluation by "X" in appropriate marking column for each item and provide supporting comments in Section 21)*

s of duties noted in Section 11)	NOT OBS OR N.A.	Outstanding performance.	Excellent performance. Frequently demonstrates outstanding performance.	Very good performance. Frequently demonstrates excellent performance.	Satisfactory performance. Basically qualified.	Inadequate performance. He is not qualified. (Adverse)
UATION OF OVERALL PERFORMANCE ALL DUTIES ASSIGNED						
(1) SHIPHANDLING AND SEAMANSHIP						
(2) AIRMANSHIP						
(3) SUBSPECIALTY/SPECIALTY (IDENTIFY):						
(4) MANAGEMENT						
(5) AS _____ WATCH/DUTY OFFICER						

IRABILITY: *Indicate your attitude toward having this officer under your command in the following categories of assignment:*

CATEGORIES	NOT OBS	Particularly desire	Prefer to most	Pleased to have	Satisfied to have	Prefer not to have (Adverse)
MAND						
RATIONAL						
FF						
NT/OSD						
EIGN SHORE						

URE ASSIGNMENT: *Based on your observation of this officer's capacity for accepting increased responsibilities, for what type of duty do you consider him best qualified for future assignment - sea and shore? (Including employment in a subspecialty for which best fitted)*

SEA _____

SHORE _____

Comment, if appropriate

RALL EVALUATION:

BASED ON YOUR OBSERVATION OF THIS OFFICER'S PERFORMANCE AND CONSIDERING EVERYTHING THAT YOU KNOW ABOUT HIM, HOW WOULD YOU DESIGNATE HIM?

NOT OBS	I NOMINATE HIM FOR ACCELERATED PROMOTION/ FLAG SELECTION	PROMOTE WITH CONTEMPORARIES: One of the top few	PROMOTE WITH CONTEMPORARIES: An excellent officer of great value to the service	PROMOTE WITH CONTEMPORARIES: A fine and typically effective officer	Entirely satisfactory in present grade	Unsatisfactory (Adverse)

designate more than one in this category, you must indicate this officer's standing in relation to the others (e.g., 1 of 3, 2 of 3, 3 of 3, etc.) When nominating a captain for section, the supporting comments in Section 21 must speak to his potential in terms of specific flag assignments for which he is particularly well suited.

In order to assist report users in making comparison among reports submitted by different seniors with varying standards of evaluation, a reasonably sampling of the overall evaluations given other officers at this time is required. Accordingly, for reports submitted on this occasion, indicate many officers of his grade (including all categories or designators and time in grade) you have marked in each category of (a). Indicate line/corps breakdowns within each summary figure. (e.g., 5(3L/2S), 11(9L/2S), etc.) The reporting of no breakdown will indicate that all are the same category. For "Detachment of Officer" reports reflect the summary figures from last periodic reports, when available.

E, GRADE, FILE NUMBER, DESIGNATOR, AND TITLE OF REPORTING SENIOR

611/1 (2-68) (BACK)

AL CHARACTERISTICS: *To what degree has this officer exhibited the following qualities?*

MARKING INSTRUCTIONS *Assign a mark of "X" in the appropriate column for each quality.*	NOT OBSERVED	IS NOT EXCEEDED	ONE OF THE TOP FEW	ABOVE THE MAJORITY		EQUAL TO THE MAJORITY		BELOW THE MAJORITY	RARELY SATISFACTORY	UNSATISFACTORY (ADVERSE)
IONAL KNOWLEDGE *(Comprehension of all aspects of the profession)*										
OURAGE *(To do what he ought to do regardless of consequences to himself)*										
(His faithfulness and allegiance to his shipmates, his command, the service and the nation)										
The positive and enthusiastic manner with which he fulfills his responsibilities)										
IVE *(His willingness to seek out and accept responsibilities)*										
Y *(The zeal exhibited and energy applied in the performance of his duties)*										
ATION *(Resourcefulness, creativeness, and capacity to plan constructively)*										
NT *(His ability to develop correct and logical conclusions)*										
CAL ABILITY *(Logical incisiveness which discriminates between assumption, fact, and hypothesis)*										
VENESS *(The ability to act rationally and with dispatch within limits of authority assigned or delegated)*										
LITY *(The dependability and thoroughness exhibited in meeting responsibilities)*										
ATION *(His ability and willingness to work in harmony with others)*										
AL BEHAVIOR *(His demeanor, disposition, sociability and sobriety)*										
RY BEARING *(His military carriage, correctness of uniform, smartness of appearance and physical fitness)*										
XPRESSION *(ORAL) (His ability to express himself orally)*										
XPRESSION *(WRITTEN) (His ability to express himself in writing)*										

NTS: Make specific rather than general comments portraying the manner of performance which caused you to mark as you did in other sections. Comment ding any strengths, special accomplishments, or weaknesses. Emphasis in all comments must be placed on displayed potential for professional develop- with particular emphasis upon potential for assuming greater responsibilities and promotion. Nominations for accelerated promotion/flag selection be supported fully by comments in this section. When nominating a captain for flag selection, comment on his potential in terms of specific flag ments for which he is particularly well suited. Long-term school reports (i.e., three months or more) must contain comments regarding displayed tial in the professional area of the curriculum studied; reports for brief periods of functional training must, as a minimum, contain a description the training received. Comment upon the degree of attainment of objectives for which the subordinate was accountable. When applicable, comment upon efforts and effectiveness in the retention and reenlistment of quality personnel, and upon economy displayed by the effective use of manpower and rial. Comment on his performance and contribution to his subspecialty, if appropriate. Comment upon the attainment of specific qualifications (e.g., Underway, plane commander, submarine or destroyer command, etc.).

Weaknesses should be discussed with the officer--Has this been done? ☐ YES ☐ NO *(Explain in Section 21)* ☐ NO SIGNIFICANT WEAKNESSES NOTED

What has been the trend of his performance since your last report? ☐ FIRST REPORT ☐ IMPROVING ☐ CONSISTENT ☐ DECLINING *(Must discuss with officer)*

Has the officer seen this report? ☐ YES ☐ NO

In the interest of maintaining effective communications with subordinates, reporting seniors are encouraged to discuss this report with the officer, but not necessarily show it to him. Has this been done? ☐ YES ☐ NO

Communications which are a direct reflection of this officer's performance should be considered in making comments in Section 21. Such communications may be forwarded separately for file in his Selection Board Jacket. Exception: A copy of a letter of censure (including appeal and denial) must be appended to the first fitness report submitted after it becomes final.

Reports containing matter of an adverse nature (in marks or comments) must be referred for statement pursuant to Art. 1701.8, Navy Regulations. Statement of officer must be endorsed and attached to this report.

FORWARDED	SIGNATURE OF REPORTING SENIOR	Concurrent and special reports must be forwarded via the officer's regular reporting senior. To avoid possible loss or misrouting of a concurrent or special report, the receipt form must be mailed direc to BuPers as the concurrent or special report is forwarded to the regular reporting senior.
NOTED AND FORWARDED	SIGNATURE OF REGULAR REPORTING SENIOR ON CONCURRENT OR SPECIAL REPORT	

C-28611

(To be completed in **pen and ink** by reporting senior)

In comparison with all other officers of the same grade whose professional abilities are known to you personally, indicate your estimate of this officer by marking "X" in the appropriate spaces below.

PERFORMANCE OF DUTY *(Based on fact)*	NOT OBSERVED	UNSATISFACTORY	BELOW AVERAGE	AVERAGE	ABOVE AVERAGE	EXCELLENT	OUTSTANDING
SPECIAL DUTIES							
OFFICIAL DUTIES							
ADMINISTRATIVE DUTIES							
HANDLING OFFICERS							
HANDLING ENLISTED PERSONNEL							
TRAINING PERSONNEL							
TACTICAL HANDLING OF TROOPS *(Unit appropriate to officer's grade)*							

TO WHAT DEGREE HAS HE EXHIBITED THE FOLLOWING?

ENDURANCE *(Physical and mental ability for carrying on under fatiguing conditions)*							
PERSONAL APPEARANCE *(The trait of habitually appearing neat, smart, and well-groomed in uniform or civilian attire)*							
MILITARY PRESENCE *(The quality of maintaining appropriate dignity and soldierly bearing)*							
ATTENTION TO DUTY *(Industry; the trait of working thoroughly and conscientiously)*							
COOPERATION *(The faculty of working in harmony with others, military and civilian)*							
INITIATIVE *(The trait of taking necessary or appropriate action on own responsibility)*							
JUDGMENT *(The ability to think clearly and arrive at logical conclusions)*							
PRESENCE OF MIND *(The ability to think and act promptly and effectively in an unexpected emergency or under great strain)*							
FORCE *(The faculty of carrying out with energy and resolution that which is believed to be reasonable, right or duty)*							
LEADERSHIP *(The capacity to direct, control, and influence others and still maintain high morale)*							
LOYALTY *(The quality of rendering faithful and willing service, and unswerving allegiance under any and all circumstances)*							
PERSONAL RELATIONS *(Faculty for establishing and maintaining cordial relations with military and civilian associates)*							
ECONOMY IN MANAGEMENT *(Effective utilization of men, money and materials)*							

Considering the possible requirements of service in war, indicate your attitude toward having this officer under your command.

Would you— ☐ NOT OBSERVED ☐ PREFER NOT TO HAVE? ☐ BE WILLING TO HAVE? ☐ BE GLAD TO HAVE? ☐ PARTICULARLY DESIRE TO HAVE?

Indicate your estimate of this officer's "General Value to the Service" by marking "X" in the appropriate box:

NOT OBSERVED	UNSATISFACTORY	BELOW AVERAGE		AVERAGE		ABOVE AVERAGE		EXCELLENT		OUTSTANDING
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

(b) Show distribution of all Item 19. (a) markings awarded officers of his grade for this reporting occasion:

(To be completed by reporting senior **in pen and ink.**) *Record in this space a concise appraisal of the professional character of the officer reported on. This space must not be left blank.)*

(To be completed by the reporting senior)

I CERTIFY that to the best of my knowledge and belief all statements made hereon are true and without prejudice or partiality.

(Signature of reporting senior) (Date)

SECTION F *(To be completed when required)*

I have seen this completed report. *(Check One)*

☐ I HAVE NO STATEMENT TO MAKE

☐ I HAVE ATTACHED A STATEMENT

(Signature of officer reported on) (Date)

(To be completed by reviewing officer)

REVIEWING OFFICER _____ GRADE _____ USN _____

ASSIGNMENT _____ INITIALS _____

☆ U.S. GOVERNMENT PRINTING OFFICE : 1963 OF—691-296

NESS REPORT—U.S. MARINE CORPS

(REV. 6–63)
AND 4–61 EDITIONS WHICH WILL BE USED)

SECTION A

E IMPRESSION *(Name, Grade, Service No., MOS's)*

EMBOSSED PLATE IMPRESSION *(Organization)*

(Last) *(First)* *(Middle initial)*

GRADE
USMC _____

SERVICE NO.

ION

)S

ADDITIONAL MOS's

FOR THIS REPORT *(Check appropriate box)*

NUAL ☐ DETACHMENT OF OFFICER REPORTED ON *(Enter unit or station to which detached, below)* ☐ CHANGE OF REPORTING SENIOR ☐ CONCURRENT REPORT ☐ OTHER *(Explain below)*

ERED: FROM *(Day, month, year)* TO *(Day, month, year)* MONTHS

NONAVAILABILITY (30 DAYS OR MORE) *(Explain)*

MENTS DURING PERIOD COVERED: A. REGULAR *(Dates, descriptive title, and duty MOS)*

AL *(Descriptive title and number of months)*

MARKSMANSHIP QUALIFICATIONS *(Lieutenants and Captains)*

ESS

NSHIP OF DEPENDENTS REQUIRING TRANSPORTATION

FERENCE FOR NEXT ASSIGNMENT *(1st choice)*

(3d choice)

FICER REPORTED ON

DATE

SECTION B *(To be completed by reporting senior)*

RADE OF REPORTING SENIOR
US _____

12. DUTY ASSIGNMENT

ATIONS FOR OFFICER'S NEXT DUTY ASSIGNMENT

ERIOD COVERED BY THIS REPORT—

	YES	NO
e work of this officer been reported on in a ndatory way?	☐	☐
: work of this officer been reported adversely?	☐	☐
s officer the subject of any disciplinary action ould be included on his record?	☐	☐

If YES in (a), (b), or (c), and a report has NOT been submitted to the CMC, attach separate statement of nature and attendant circumstances. If a report has been submitted to the CMC, reference such report below:

THIS REPORT ARE BASED ON *(Check appropriate box)*

NTACT AND CLOSE OBSERVATION OFFICER'S WORK ☐ FREQUENT OBSERVATIONS OF THIS OFFICER'S WORK ☐ INFREQUENT OBSERVATIONS OF THIS OFFICER'S WORK

15. B. TO BE COMPLETED ON ORGANIZED RESERVE OFFICERS

ATTENDED _____ OF _____ SCHEDULED DRILLS

e impression is used, do not complete Items 1, 2, and 3.

B

DEPARTMENT OF THE NAVY
Office of the Secretary
Washington 25, D.C.

SECNAV 1520.6
Op-100
Ser 11259
5 February 1964

SECNAV INSTRUCTION 1520.6

From: Secretary of the Navy
To: All Ships and Stations

Subj: Education for naval officers and career civilians in engineering/scientific and management fields

Ref: (a) SECNAVINST 1520.4 of 7 Mar 1963

1. Purpose. This Instruction supplements reference (a) in that it sets forth the policy of the Secretary of the Navy in regard to education and training in engineering/scientific and management fields for naval officers and career civilian personnel assigned to the Department of the Navy. It further delegates the responsibility for establishing requirements, implementing necessary procedures, and insuring that all such educational and training programs are carried out in a manner to be most beneficial to the naval service and the individual involved.

2. Applicability. This Instruction applies to all officers and career civilian personnel throughout the Department of the Navy.

3. Background and Discussion. During the last decade the Navy has witnessed an advancement of scientific technology that has accelerated the state of the art of naval warfare more than in any period of history. This rapid advance of scientific technology is being, and will continue to be, manifested in naval ships, weapons systems, and equipment. Accompanying this advancement of scientific technology is a dynamic increase in the requirements for personnel of the highest competence in all levels of management. To exploit the full potential of modern technology, we of the Navy must acquire the requisite knowledge to design, construct, operate, and maintain the equipment that will give us optimum naval power. In order to meet these demands the Navy must retain within itself the capability to provide top engineering and technical management for weapons systems development. To meet the Navy's need for top talent in the engineering/scientific and management fields, the following must be accomplished:

a. Increase by undergraduate full-time study, or by self-study, the numbers of officers qualified for graduate education in the engineering/scientific and management fields.

b. Encourage voluntary application for graduate education in the engineering/scientific and management fields.

c. Insure that officers selected for advanced education in the engineering/scientific and management fields are made available and ordered in sufficient numbers to meet the Navy's billet requirements for such education.

d. Exploit the undergraduate and graduate education of individuals by appropriate duty assignments, giving due attention to the broad professional experience needs which supplement the officer's educational background.

e. Insure that performance in all duty assignments is the primary criterion for advancement. Performance will be increasingly dependent upon the officer's ability to understand and cope with the new scientific environment of the Navy. Emphasize to all officers that graduate education, coupled with outstanding performance, will enhance an officer's chances of advancement by enlarging the sphere of subspecialty duty assignments for which he will be eligible. Successful command at sea remains the hallmark of the unrestricted line officer, and the broader and deeper the educational base of the officer corps, the greater the opportunity will be for each officer to gain this hallmark in the complex Navy of the future. Selection boards must recognize this as a potent factor in judging the career performance of naval officers considered for advancement.

f. Develop definitive career patterns for civilian personnel, especially those who, by job performance, have demonstrated their capability for increased management responsibility.

g. Enhance opportunity for the advanced education and professional training of civilian personnel consistent with the individual's career objectives and the Navy's needs.

4. Action. The following action shall be taken to meet the Navy's needs for more officers and career civilians educated and trained in the engineering/scientific and management fields:

a. The Chief of Naval Operations shall determine the present and future needs, both quantitative and qualitative, for such education of naval officers. He shall give continuous

APPENDIX B

tention to personnel policies, and recommend gressive and imaginative solutions to those ficiencies which adversely affect the ability the Navy to respond to the naval mission.

b. The Chief of Naval Personnel shall draft d keep current the officer education plan to et the needs as determined by the Chief of val Operations for the increased education of icers in the engineering/scientific and manement fields by:

(1) Encouraging increased undergraduate tention to the engineering/scientific and manement fields in all officer procurement and vy-sponsored educational programs.

(2) Encouraging voluntary application for duate education in the engineering/scientific d management fields.

(3) Insuring that officers selected for adnced education in the engineering/scientific d management fields are made available and dered in sufficient numbers to meet the reirements set forth by the Chief of Naval erations.

(4) Insuring that the undergraduate and duate education of individuals is exploited by propriate duty assignments.

(5) Insuring that selection boards are inmed of the needs of the service in the engineering/scientific, managerial and operational cialties and briefed accordingly.

c. The Chief of Industrial Relations shall coordinate the determination of management training and education for civilian personnel, using inputs from the Chief of Naval Operations, Commandant of the Marine Corps, Chief of Naval Material, and the Chiefs of other supporting organizations. The Chief of Industrial Relations will coordinate this management training with DOD sources, other Government agencies, and non-Government facilities.

d. The Chief of Naval Operations, Commandant of the Marine Corps, Chief of Naval Material, and the Chiefs of other supporting organizations shall expand and expedite civilian career programs within the framework of SECNAV Instruction 12000.7 as the basis for establishing management education and training requirements.

e. Commanders insure that:

(1) All officers and career civilians subject to their direction are aware of the policy stated in this Instruction.

(2) Officers and career civilians are encouraged and given the opportunity to advance their professional careers by undertaking education and training in the engineering/scientific and management fields.

PAUL B. FAY, JR.
Under Secretary of the Navy

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APPENDIX B

C

APPENDIX C

Criteria for Officer Subspecialty Qualification and Identification.[80]

1. Financial Management (Subspecialty Area Code 9400).

a. The following criteria will be used to determine those unrestricted line officers who qualify as subspecialist in Financial Management.

(1) To be designated as qualified to serve in a subspecialty P-coded billet in the Financial Management subspecialty area an unrestricted line officer must meet one of the following minimum requirements:

(a) Be a graduate of a Navy sponsored postgraduate course in one of the following:

1) Business Administration (Financial Option)

2) Financial Management

3) Navy Management (Financial Option)

(b) Have a Master's degree or its equivalent in study in any of the areas in (a) above.

(2) To be designated as qualified to serve in a subspecialty S-coded billet in the Financial Management subspecialty area an unrestricted line officer must meet one of the following minimum requirements:

(a) Be a graduate of the Industrial College of the Armed Forces (Past assignment and/or next assignments in a subspecialty area will determine if designated a Financial Management or Material Support Management subspecialist.

(b) Have a baccalaureate degree in any of the areas in (1) (a) above and served one tour in a related Financial Management billet.

(c) Served two tours in related Financial Management billets.

(d) Have civilian experience equivalent to a Navy tour in any of the areas in (1) (a) above and served one tour in a related Financial Management billet.

b. The following identification codes will be used to identify subspecialist in Financial Management. These Codes will be used in conjunction with the one letter suffix P, S, or Q.

9400	Financial Management
01	Business Administration (Financial Option)
02	Financial Management
03	Navy Management (Financial Option)

2. Personnel Management (Subspecialty Area Code 9600).

a. The following criteria will be used to determine those unrestricted line officers who qualify as subspecialists in Personnel Management.

(1) To be designated as qualified to serve in a subspecialty P-coded billet in the Personnel Management subspecialty area an unrestricted line officer must meet one of the following minimum requirements:

(a) Be a graduate of a Navy sponsored postgraduate course in Navy Management (personnel) (includes Personnel Administration and training).

(b) Have a Master's degree or its equivalent in study in the area in (a) above.

(2) To be designated as qualified to serve in a subspecialty S-coded billet in the Personnel Management subspecialty area an unrestricted line officer must meet one of the following minimum requirements:

(a) Have a baccalaureate degree in Personnel Administration, Personnel Management Education or closely related field and served one tour in a related Personnel Management billet.

(b) Served two tours in related Personnel Management billets.

(c) Have civilian experience equivalent to a Navy tour in the fields of personnel administration or education and served one tour in a related Personnel Management billet.

b. The following identification code will be used to identify subspecialists in Personnel Management. This code will be used in conjunction with the appropriate one letter suffix P, S, or Q.

9600	Personnel Management
01	Navy Management (Personnel Option)

3. Material Support Management (Subspecialty Area Code 9800).

a. The following criteria will be used to determine those unrestricted line officers who qualify as subspecialist in Material Support Management.

(1) To be designated as qualified to serve in a subspecialty P-coded billet in the Material Support Management subspecialty area an unrestricted line officer must meet one of the following minimum requirements:

(a) Be a graduate of a Navy sponsored postgraduate course in one of the following:

1) Business Administration

2) Management and Industrial Engineering

3) Industrial Management

4) Navy Management (Material Logistics Option)

5) Navy Management (Economics and systems analysis option)

(b) Have a Master's degree or its equivalent in study in any of the areas in (a) above.

(2) To be designated as qualified to serve in a subspecialty S-coded billet in the Material Support Management subspecialty area an unrestricted line officer must meet one of the following minimum requirements:

(a) Be a graduate of the Industrial College of the Armed Forces. (Past assignments and/or next assignments will determine subspecialty code).

(b) Have a baccalaureate degree in any of the areas in (1) (a)

above and served one tour in a related material support management billet.

(c) Served one tour of duty in a related Material Support Management billet plus one of the following:

1) Have civilian experience (at least two years) in a position in industrial management, industrial engineering, quality assurance control, production control or management, Corporation legal procedures, or distribution and transportation of industrial products.

2) Served a second tour in a material support management billet.

3) Successfully completed management training consisting of one of the following:

a) Transportation Management School (5½months).

b) Army Installation Management Course (3 weeks for Captains and Commanders).

c) Defense Management System (4 weeks for Commander and above).

d) Twelve graduate semester hours in the Management area.

e) Management training which is determined to be equivalent to a), b), c), or d) above.

(d) Have previously acquired an engineering type subspecialty and served one tour in a related Material Support Management billet or completion of the equivalent of twelve graduate semester hours in the Management area.

b. The following identification codes will be used to identify subspecialists in Material Support Management. These codes will be used in conjunction with the appropriate one letter suffix P, S, or Q.

9300	Material Support Management
01	Business Administration
02	Management and Industrial Engineering
03	Navy Management (Material Management Option)
04	Navy Management (Economics Option)

APPENDIX D

OFFICER BILLET DESIGNATOR CODES[81]

The officer billet designator code is a four-digit number used to place officer billets in administrative categories and fields of primary naval qualifications.

UNRESTRICTED LINE BILLET DESIGNATORS

Designator Code	Billet Code Description
1000	Unrestricted line officer who may be either an 1100 or 1300 officer.
1100	Unrestricted Line officer.
1120	Unrestricted Line officer who is qualified in submarines.
13XX	Unrestricted Line officer who is a member of the Aeronautical organization.

RESTRICTED LINE BILLET DESIGNATORS

Designator Code	Billet Code Description
1400	Engineering Duty Officer.
1510	Aeronautical Engineering Duty Officer.
1520	Aeronautical Maintenance Duty Officer.
1530	Aeronautical Engineering Duty Officer (Meteorology).
1610	Special Duty Officer (Cryptology).
1630	Special Duty Officer (Intelligence).
1650	Special Duty Officer (Public Affairs).
1700	Ordnance Engineering Duty Officer.
1820	Special Duty Officer (Oceanographer/Hydrographer).

STAFF BILLET DESIGNATORS

Designator Code	Billet Code Description
2100	Medical Corps Officer.
2200	Dental Corps Officer.
2300	Medical Service Corps Officer.
2500	Judge Advocate General's Corps Officer.
3100	Supply Corps Officer.
4100	Chaplain Corps Officer.
5100	Civil Engineer Corps Officer.

APPENDIX E

Unrestricted Line, Restricted Line and Staff Corps designators and designated sponsors.[82]

Designator	Category	Sponsor
11XX	Unrestricted Line Officer (surface)	DCNO (Manpower and Naval Reserve)
13XX	Unrestricted Line Officer (Air)	DCNO (Air)
1400	Engineering Duty Officer	Commander, Ships Systems Command
1510	Weapons Engineering Duty Officer	Commander, Air Systems Command
1520	Ordnance Engineering Duty Officer	Commander, Ordnance Systems Command
1530	Meteorologists	Director, Naval Seather Command Service
1610	Special Duty Officer Cryptology	Director, Naval Communications
1630	Special Duty Officer Intelligence	Director, Naval Intelligence
1640	Special Duty Officer Photography	DCNO(Fleet Operations and Readiness)
1650	Special Duty Officer Public Affairs	Chief of Information
1820	Special Duty Officer Oceanographer/Hydrographer	Oceanographer of the Navy
2100	Medical Corps Officer	BUMED
2200	Dental Corps Officer	BUMED
2300	Medical Service Corps	BUMED
2500	Judge Advocate General's Corps Officer	Judge Advocate General
2900	Nurse Corps Officer	BUMED
3100	Supply Corps Officer	Supply Systems Command
4100	Chaplain Corps Officer	Chief of Chaplains
5100	Civil Engineer Corps Officer	Facilities Engineering Command

FOOTNOTES

1. U. S. Navy Publications, "Financial Management in the Navy," NAVPERS 10792-B (INI), Government Printing Office, Washington, D. C., 1967, p. 1-1.

2. Ibid., p. 1-1.

3. John Paul Jones, "Code of a Naval Officer."

4. SECNAV Notice 1412, SO-1, Subject: "Criteria for Selection to Flag Rank in the Navy," 1 May 1963, p. 9.

5. A comprehensive list of unrestricted line subspecialties is contained in BUPERSINST 1210.13A of 9 March 1967.

6. Bureau of Naval Personnel, Navy Officers Careers Handbook, Government Printing Office, Washington, D. C., 1964, p. 13.

7. U. S. Navy Department, "Review of Management of the Department of the Navy," NAVEXOS P-2426B, Government Printing Office, Washington, D. C., 1963, p. 116.

8. Naval Postgraduate School Catalogue for 1968-1970, p. 14.

9. N. C. Youngblood, "The Effect of Postgraduate Education on Selection from Commander to Captain," (Unpublished Master's Thesis, U. S. Naval Postgraduate School, Monterey, Calif.), May 1962, p. 27.

10. Ibid., p. 20.

11. SECNAVINST 1520.6 of 5 February 1964, Subject: Education for naval officers and career civilians in engineering scientific and management fields., p. 2.

12. Ibid., p. 2.

13. J. M. Tully, CAPT, USN, "Midshipmen Choose "Management" As Most Popular Minor Program.", Navy Management Review, July 1966, p. 13.

14. R. H. Kallies, CDR, USN, Management Curriculum Officer, Naval Postgraduate School, Monterey, Calif. (Interview with CDR Kallies on 16 May 1969.)

15. Editorial, Time, Vol. 93, No. 15, April 11, 1969, p. 20.

16. J. T. Hayward, VADM, USN(Ret), "The Second-Class Military Advisor; His Cause and Cure," Armed Forces Management, Vol. 15, No. 2, November 1968, p. 73.

17. J. T. Hayward, VADM, USN, "Presidents' Hour," Lecture, Naval War College, Newport, R. I., 2 October 1967.

18. R. W. McNitt, RADM, USN, "Educating Future Naval Officers," 1967 Naval Review, U. S. Naval Institute, George Banta Co., Menasha, Wisc., 1966, p. 45.

19. Ibid., p. 46.

20. Volunteer Training Unit 4-13, H. H. Bell, Col. USMCR, Commanding, "U. S. Marine Corps Special Education Program 1976-85 (Long Range," pp. III-2 and III-3.

21. J. T. Cockrill, CAPT, USN, "Management in Acquisition," U. S. Naval Institute Proceedings, Vol. 93, No. 10, October 1967, p. 47.

22. Ibid., p. 46.

23. Ibid., p. 47.

24. Ibid., p. 47.

25. SECNAV NOTICE 1412, Op. Cit.

26. Ibid., p. IV.

27. The term "technical" is used in the broad sense to indicate any one of the recognized subspecialties, eg. weapons engineering, oceanography, meteorology, etc.

28. SECNAV Notice 1412, Op. Cit., p. 8.

29. Ibid., p. 8.

30. Ibid., p. 8.

31. Ibid., p. 8.

32. Ibid., p. 9.

33. P. H. Nitze, Secretary of the Navy, "Stereotyped Career Ruled Out by Nitze in Navy Flag Selections," The Journal of the Armed Forces, Vol. 103, No. 39, 28 May 1966, p. 32.

34. P. H. Nitze, Secretary of the Navy, "Flag Officer Board Urged To Focus Attention On Systems Analysis Resources Management," The Journal of the Armed Forces, Vol. 104, No. 40, 3 June 1967, p. 29.

35. P. R. Ignatius, Secretary of the Navy, "Ignatius Letters To Flag Board Says Selectees Should Possess Military Judgement, Management Expertise, Technological Skills," The Journal of the Armed Forces, Vol. 105, No. 40, 1 June 1968, p. 7.

36. Ibid., p. 8.

37. D. M. Shoup, GEN, USMC(Ret), "The New American Militarism," The Atlantic Monthly, Vol. 223, No. 4, April 1969, p. 53.

38. Chief of Naval Operations Report of a Board to Study Billet Requirements and Grade Distribution in the Subspecialty and Specialty Areas in the Navy, (Combs Board), December 1964. p. I-2.

39. Ibid., p. I-2.

40. Ibid., p. I-2.

41. Ibid., p. I-2.

42. Ibid., p. I-2.

43. OPNAVINST 1211.6A, 23 July 1965. Identification of Unrestricted Line Officer Subspecialty Billets and Restricted Line and Staff Corps Officer Billets Requiring Graduate Level Education. p. 1.

44. Ibid., p. 1.

45. Ibid., p. 2.

46. BUPERSINST 1210.13a, 9 March 1967. Qualification and Identification of Unrestricted Line Officer Subspecialists. p. 2.

47. Marine Corps Order 1520.9A, 7 June 1968. Special Education Program. p. 1.

48. OPNAVINST 1000.16A, 3 February 1969. Manpower Authorizations: format and procedures for requesting changes to. Encl. 6. p. 1.

49. OPNAVINST 1212.1, 28 July 1966. Officer Designator Sponsors and Subspecialty Area Advisors, designation of. p. 1.

50. BUPERSINST 1210.13A, Op. Cit. Encl (1). p. 2.

51. Combs Board. Op. Cit., p. L-7.

52. Secretary of the Navy, August 1967, Study of Officer Career Management. Appendix III, p. III-5, III-6.

53. SEP Requirement as of 15 September 1968.

54. BUPERSINST 1210.13A, Op. Cit. Encl (1). p. 3.

55. Combs Board. Op. Cit., p. M-3.

56. Secretary of the Navy. Op. Cit. Appendix III, pp. III-8, III-9.

57. SEP Requirements as of 15 September 1968.

58. OPNAVINST 1210.13A, Op. Cit. Encl. (1). p. 5.

59. Secretary of the Navy. Op. Cit. Appendix III, pp. III-11, III-12.

60. SEP Requirements as of 15 September 1968.

61. Secretary of the Navy, Op. Cit. Appendix III. p. III-12.

62. F. D. Leder, LT COL, USMC, "Is Executive Development in the United States Marine Corps on Track." A term paper. March 1969. pp. 12,13.

63. Report by the Ad Hoc Committee to the Chief of Naval Personnel on Naval Officer Education, 17 July 1959. (Cook Report). pp. B-5, B-28.

64. OPNAVINST 1211.6A Op. Cit. p.2.

65. United States Naval Postgraduate School, 1964, Mission and Role in Officer Education. p. J-1.

66. Ibid., p. J-2.

67. Ibid., p. J-7.

68. Data on the Naval Postgraduate School, Monterey, California, April 1968. p. VII-5.

69. United States Naval Postgraduate School, 1964, Mission and Role in Officer Education, p. J-12.

70. Data on the Naval Postgraduate School, Op. Cit. p. III-24.

71. Ibid., p. III-24.

72. Ibid., p. III-24.

73. Management School Presentation to Ad Hoc Postgraduate Curricula Board, 1961. p. 2.

74. Postgraduate Mission and Role, Op. Cit. p. I-65.

75. K. R. Wheeler, RADM, USN, "Comptrollership Training in The Navy," The Armed Forces Comptroller, Jan 1969, Vol. 14, No. 1, p. 8.

76. Roscoe L. Barrett, Jr., COL, USMC, "Financial Management Education in The Marine Corps," The Armed Forces Comptroller, Jan 1969, Vol. 14, No. 1. pp. 24, 25.

77. Howard O. Johnson, "Trends in Navy Postgraduate Education," Officer Education, Winter 1968-69. p. 29.

78. Terence B. Sutherland, LCDR, USN. "Applications of Recent Sociological Surveys to Personnel Management Aboard Ship," Naval War College Review.

79. Interview with RADM Robert W. McNitt, USN, Superintendent, Naval Postgraduate School, Monterey, California, 15 May 1969.

80. BUPERSINST 1210.13A Op. Cit. p. 2.

81. OPNAVINST 1000.16A Op. Cit. Encl. (6), p. 1.

82. OPNAVINST 1212.1 Op. Cit. Encl. (1), p. 1.

BIBLIOGRAPHY

1. Barrett, Roscoe L. Jr., COL, USMC. "Financial Management Education in The Marine Corps," The Armed Forces Comptroller, Jan 1969, Vol 14, No. 1.

2. Bell, H. H., COL, USMCR. "U. S. Marine Corps Special Education Program 1976-85 (Long Range)," Volunteer Training Unit 4-18.

3. BUPERS Instruction 1210.13A, 9 March 1967. Qualification and Identification of Unrestricted Line Officer Subspecialists.

4. Bureau of Naval Personnel, Navy Officers Careers Handbook, Government Printing Office, Washington, D. C., 1964.

5. Cockrill, J. t., CAPT, USN, "Management in Acquisition," U. S. Naval Institute Proceedings, Vol 93, No. 10, October 1967.

6. Combs Board. Chief of Naval Operations Report of a Board to Study Billet Requirements and Grade Distribution in the Subspecialty and Specialty Areas in the Navy, December 1964.

7. Cook Board. Report by the Ad Hoc Committee to the Chief of Naval Personnel on Naval Officer Education, July 1959.

8. Hayward, J. T., VADM, USN (Ret), "The Second Class Military Advisor; His Cause and Cure," Armed Forces Management, Vol 15, No. 2, Nov 1968.

9. Hayward, J. T., VADM, USN (Ret), "Presidents' Hour," Lecture, Naval War College, Newport, R. I., 2 October 1967.

10. Ignatius, P. R., Secretary of the Navy, "Ignatius Letters to Flag Board Says Selectees Should Possess Military Judgement, Management Expertise, Technological Skills," The Journal of the Armed Forces, Vol 105, No. 40, 1 June 1968.

11. Johnson, H. O., "Trends in Navy Postgraduate Education," Officer Education, Winter 1968-69.

12. Jones, John Paul, "Code of a Naval Officer."

13. Kallies, R. H., CDR, USN, Management Curricular Officer, Naval Post-Graduate School, Monterey, California. (Interview 16 May 1969).

14. Management School Presentation to Ad Hoc Postgraduate Curricula Board 1961.

15. Marine Corps Order 1520.9A, 7 June 1968. Special Education Program.

16. McNitt, R. W., RADM, USN, "Educating Future Naval Officers," 1967 Naval Review, (U. S. Naval Institure), George Banta Co., Menasha, Wisc., 1966.

17. McNitt, R. W., RADM, USN, Superintendent, Naval Postgraduate School, Monterey, California. (Interview 15 May 1969).

18. Naval Postgraduate School Catalogue for 1968-70.

19. Naval Postgraduate School, Monterey, California, Data.

20. Nitze, P. H., Secretary of the Navy, "Stereotyped Career Ruled Out By Nitze In Navy Flag Selections," The Journal of the Armed Forces, Vol 103, No. 39, 28 May 1966.

21. Nitze, P. H., Secretary of the Navy, "Flag Officer Board Urged to Focus Attention On Systems Analysis Resources Management," The Journal of the Armed Forces, Vol 104, No. 40, 3 June 1967.

22. OPNAV Instruction 1211.6A, 23 July 1965. Identification of Unrestricted Line Officer Subspecialty Billets and Restricted Line and Staff Corps Officer Billets Requiring Graduate Level Education.

23. OPNAV Instruction 1000.16A, 3 February 1969. Manpower Authorizations: format and procedures for requesting changes to

24. OPNAV Instruction 1212.1, 28 July 1966. Officer Designator Sponsors and Subspecialty Area Advisors, designation of

25. SECNAV Notice 1412, 1 May 1963. Criteria for Selection to Flag Rank in the Navy.

26. SECNAV Instruction 1520.6, 5 February 1964. Education for Naval Officers and Career Civilians in Engineering/Scientific and Management Fields.

27. Secretary of the Navy, August 1967, Study of Officer Career Management.

28. SEP Requirement as of 15 September 1968.

29. Shoup, D. M., GEN, USMC (Ret), "The New American Militarism," The Atlantic Monthly, Vol 223, No. 4., April 1969.

30. Sutherland, Terence B., LCDR, USN, "Applications of Recent Sociological Surveys to Personnel Management Aboard Ship," Naval War College Review.

31. Time, Editorial, Vol 93, No. 15, 11 April 1969.

32. Tully, J. M., CAPT, USN, "Midshipmen Choose Management As Most Popular Minor Program," Navy Management Review, July 1966.

33. United States Naval Postgraduate School, 1964, Mission and Role in Officer Education.

34. U. S. Navy Department, "Review of Management of the Department of the Navy," NAVEXOS P-2426B, Government Printing Office, Washington, D. C. 1963.

35. U. S. Navy Publications, "Financial Management in the Navy," NAVPERS 10792-B (INT), Government Printing Office, Washington, D. C., 1967.

36. Wheeler, K. R., RADM, USN, "Comptrollership Training in the Navy," The Armed Forces Comptroller, Jan 1969, Vol 14, No.1.

37. Youngblood, N. c., "The Effect of Postgraduate Education on Selection from Commander to Captain," (Unpublished Master's Thesis, U. S. Naval Postgraduate School, Monterey, California), May 1962.

MILITARY SPONSORED MANAGEMENT EDUCATION

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by

LTCOL. FREDERICK D. LEDER, USMC
LTCOL. ROBERT W. MARTIN, JR., USMC
MAJOR PAUL A. WILSON, USMC

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I INTRODUCTION

The purpose of this Chapter is to incorporate the material presented in Chapters I and II into an overall evaluation of military management practice as it exists today, and to investigate the role played by the military management schools in supplying the education needed to carry forward the programs and functions of the military establishment. Chapter I has provided a description of what the civilian institutions offer in management education from the junior college level thru the Doctorate level. The changes that have occured over time in the adoption of the curricula to support the civilian institutions' objective of supplying the managers required by industry is well documented. Chapter II has outlined the specific needs and interests of the Navy and Marine Corps in management education in terms of officer advanced education billet requirements and the criteria used in the establishment of these billets. We may now consider the status of management practice in the military today.

A. Military Management Practice

At the start of World War II Congress gave U. S. Industry an enormous assignment to produce --in a relatively short time period -- the armaments necessary to equip not only American armed forces but also those of her allies. Along with this assignment the military passed on to industry its best management techniques, which, in comparison with industry practices at the time, could be classified as somewhat sophisticated. From the beginning,

the military management system became responsible for today's emphasis on operations research methods, the application of PERT, line of balance, quality assurance, zero defects programs, and data processing for quick reactions. Following the war business applied these same techniques in catching up with the production of consumer commodities that were in great demand, but it was particularly in the military-related industries that these methods of advanced management techniques became essential. In this sense, the military has been a leader in the development of management techniques, and, although it may not be able to claim every management technique as its own, it has had its impact on the development of the practice of management.

In order to understand fully the management needs of the military services, one must understand that modern warfare, with its massive increase in the destructive power of weapons, created, first of all, a need for the technician. With each rise in destructive power, officer education in the technical fields was emphasized. With each advance of social consciousness, discipline also became more reasonable, and the rights and benefits of enlisted men progressed arm in arm with the advances made in the civilian labor field. The military leader of today is no longer the man on horseback enforcing rigid discipline. He is a leader and a manager charged with the responsibility of maintaining efficiency, initiative and morale.

Our country, having experienced big business, big industrialization, big labor, and big government with all their attendant problems, has plunged into big management.

"Big Military" has arrived with large standing forces, huge budgets, and a destructive power of incredible proportions. "The McNamara-Hitch-Enthoven influence of the 1960's has performed the shotgun wedding of military management. Despite resistance by some officers the military has now adapted to the management revolution."[1] The current view of most naval officers was well expressed by Vice Admiral Hayward: "We must educate officers in the techniques of modern management to cope with present day realities in the Department of Defense if the Navy is to influence its own future and the security of our nation."[2]

Thus, as business organizations passed thru the stages of entrepreneur, "robber baron", family corporations, and, now diversified multi-corporations, so the military has gone from individualistic units to large forces in which organization has reached a stage of bureaucratic development which foreshadow developments in other organizations.

> "Concepts now commonly applied in industry such as line of command, staff-line, the development of oral briefings, and others, were derived from military experience. It is already evident that the highly bureaucratized patterns of career succession in the military have spread to large industrial corporations."[3]

The military today more than ever must account for its stewardship, and as a result it must not only keep abreast of developments in industry, but it must continually develop new methods and practices to insure economic use of the resources placed at its disposal thru public policies. We find that in mid 1969, the management revolution that was literally forced upon the military by the McNamara "Whiz Kids", has not satisfied the public demand for greater efficiency. The persistent

drive toward scientific management techniques and the fact that commanders at all levels are charged with the inherent responsibility for efficient management has not prevented the modern critic from charging that military incompetency and gross inefficiency are to blame for the abuses associated with the military-industrial complex. For example, the wastes uncovered in the Lockheed C5A procurement program have unleashed new pressures for investigation of military contract practices and congressional legislation to control them. On Sunday, May 25th, 1969, Senator William Proxmire, who heads a congressional committee investigating military spending practices, stated on the CBS television program, "Face the Nation": "There are clear signs that the federal government is spending too much money on military programs. Huge cost overruns, waste, and inefficiency have become the hallmark of military procurement."

Unfortunately there is no adequate defense against such criticisms, particularly when the facts in many instances support the allegations. The solution to the problem certainly is not solvable in the short run, that is, within the next year or two or even five years hence. What is needed is a program to ensure that all military managers throughout the Department of Defense continue to press for managerial efficiency. It seems certain that in today's environment the techniques of management are not reserved for the use of officials in the top echelons of the services and DOD. It may be envisioned that all commanders will soon be required by specific regulations to utilize all of the tools of management in every area of the decision-making processes. This new guide for making decisions

is just one more step in the continuing quest for providing a better service to the nation.

The younger military officers are maturing in the atmosphere of an economic-military alliance, and if they are to become a part of top management, they must be concerned with the interdependence of economy and warfare. Basically then, it is with this thought in mind that the military today is concerned with management education of its future leaders and managers. Leadership that was once based upon traditional military customs must now share power with experts not only in technical matters but also in matters of organization and human relations.

B. The Offerings of Civilian Management Schools

As discussed in Chapter I, American business administration schools and departments appear today under a proliferation of titles. They may be called industrial management or even industrial engineering departments. Not long ago, many were still operated under the guidance of economics departments. But, generally speaking, one can categorize their professional offerings as follows:

(1) Many undergraduate programs offer a general engineering prelude to the study of business courses. They provide their graduates with a broad background of engineering subjects and of the physical sciences underlying them. The industrial engineering program at Columbia and the industrial management program at Carnegie Institute of Technology are representative of this group. The graduate business administration programs that follow this philosophy do not themselves offer engineering work,

but recruit a major portion of their students from the graduates of engineering colleges.

(2) A second feature of American business administration programs consists of technical courses in tools of the trade and in particular subject matters of management. Courses in the areas of accounting, statistics, and economic analysis and in the subject areas of marketing, production, and finance are common. Some programs give more of an emphasis to tools; some to subject areas. Some programs proliferate their courses; others offer only a few basic ones. But all present these technical business subjects under one guise or another.

(3) The third feature of American professional business education is, for our purposes, probably the most interesting. This is education in human relations, in how to work with and how to manage people. This is, in essence, the administrative part of business administration education, an aspect which has become ever more important and intriguing to the manager.

The military today has become an integral part of the society upon which it depends for technological resources. Coupled with a narrowing difference in technical skills required by either military or civilian organizations one could surmise that management education that meets the needs of industry should also meet the needs of the military. To some extent, this assumption may be correct; however, the military manager is not a profit motive executive like his civilian counterpart. The military manager is charged with the responsibility to manage resources entrusted to his care by the public, and he must be able effectively to utilize these resources under every conceivable condition

of peace or war. He must be well versed in the economic, industrial, scientific, and technological aspects of national security.

The remainder of this Chapter describes the military management schools and the specific roles they play in the overall effort to prepare the military officer for fulfilling his managerial responsibilities.

II SERVICE SCHOOLS

A. General

The Navy and the Marine Corps make available to their officers a variety of school assignments which, by virtue of the courses offered, provide a wide spectrum of management education. This section will address the service schools to which Navy and Marine Corps officers are normally assigned, and will discuss the purpose of each school, the management level of the officers attending, and either the actual curriculum or general course content of each school.

B. The United States Naval Academy

At the outset of his career, the Navy or Marine Corps officer is normally either a graduate of a civilian university or college, or is a graduate of the United States Naval Academy, Annapolis, Maryland. The stated purpose of the course of instruction at the Naval Academy is to "...educate and train young men for careers as officers in the naval service."[4] Implicit in that purpose is the requirement to educate and train young men for careers as managers, since that in essence is what officers actually are.

A comparison of those management-oriented courses currently

being taught at the Naval Academy (See Appendix (1)) with those of civilian institutions (as discussed earlier in this chapter, and as shown extensively in Appendix (3) to Chapter I) reveals a striking similarity. It should be noted, however, that officers attending the Naval Academy prior to 1965 did not have the opportunity to avail themselves of these management courses, in-as-much as the management program was not offered as an elective until the 1965-1966 school year.[5] Additionally, approximately 67% of non-Naval Academy officers do not have majors in Business Administration or any other reasonably associated management subject, and therefor can be expected to possess marginal managerial education.[6] As a result, the vast majority of officers 26 years of age or older have little or no formal undergraduate background in managerial subjects.

There are no figures available to this study which would indicate the actual number of post-1965 Naval Academy graduates who pursued management majors or minors. However, considering the quantity of courses being offered/required for other programs which have management overtones (Economics, Electronic Data Processing, Calculus, Statistics, etc.), it is a reasonable assumption that post-1965 graduates possess a substantial managerial background that should equip them to perform successfully in the lower level management billets to which they will be assigned during their first 4-6 years of commissioned service.

C. Command and General Staff Officer Course

The Command and General Staff Officer Course, U. S. Army Command and General Staff College, Fort Leavenworth, Kansas, provides a 38 week course for officers with 8-15 years of

commissioned service (Equivalent ranks of Lieutenant through Lieutenant Commander - Middle Management) with the expressed purpose

> "To provide officers with a working knowledge for wartime and peacetime duty, to include joint aspects thereof, as commanders and general staff officers at division, corps, field army, and army group (introduction only) to include their combat support systems. To provide a basis for satisfactory performance in a wide variety of command and staff positions at non-tactical headquarters. To provide the basis for future development for progression to higher command and staff responsibilities."

In satisfying that purpose the strictly management oriented courses shown in Appendix (2) are presented, as well as other courses which may have management implications.[7]

D. Marine Corps Amphibious Warfare Course

The Marine Corps Amphibious Warfare Course, Marine Corps Amphibious Warfare School, Education Center, Marine Corps Development and Education Command, Quantico, Virginia, conducts two 21 week courses per year, each covering the same material, for officers in the equivalent ranks of Lieutenant through Lieutenant Commander (Middle Management). The purpose of this course is "To provide professional education...in command and staff duties appropriate to the current and next higher grades."[8] No courses of strictly management nature are taught; however, Appendix (3) lists those courses taught which do have management overtones.

E. U. S. Naval War College

The U. S. Naval War College, Newport, Rhode Island, offers two courses which are of interest to this study; the Command and Staff Course, and the Naval Warfare Course.

The Command and Staff Course is a 42 week course designed "to provide students with an opportunity to further their understanding of the fundamentals of warfare."[9] The Navy Formal

Schools Manual indicates that this school has been established for officers with 10-16 years service. This translates to officers in the ranks of Lieutenant through Commander, and may be further equated to middle management potential. A listing of the specific courses offered in this course is not available (latest catalog available was for the 1960-1962 course year); however the pamphlet, "U. S. Naval War College, Newport, Rhode Island, 1966-1968", does specify the subjects listed in Appendix (4), many of which pertain directly or indirectly to the study of managerial functions and duties.

The Naval Warfare Course is a 42 week course with the stated purpose "...to further an understanding of the fundamentals of warfare, international relations, and inter-service operations in order to prepare officers for higher command."[10] The Navy Formal Schools Manual sets prerequisites at 16-23 years of commissioned service; this would include officers in the ranks of Lieutenant Commander through Captain, and thereby relate to Top Management potential. As with the Command and Staff Course, no listing of specific courses is available; Appendix (4) does contain the general course content given in the pamphlet, "U. S. Naval War College, Newport, Rhode Island, 1966-1968" and a quasi-subject listing drawn from the same source. It is noted that there is some degree of emphasis placed on military management at the various stratas in the command and control structure of the armed forces and the Department of Defense, as well as on "a study of the management activities of the Navy".

A program of elective studies is offered students coincident

with the normal curricula, among which are courses in Economics, and Defense Management. A MS degree is available to qualified students through the George Washington University after-hours study program.[11]

The educational philosophy of the Naval War College emphasizes "the development of reasoning powers, the exercise of judgement, and the promotion of intellectual leadership..."[12] - a summary of some of the traits of any good manager.

F. Armed Forces Staff College

The Armed Forces Staff College, Norfolk, Virginia, offers two 5 month courses each year (each the same) organized around a mission

> "To conduct a course of study in joint and combined organization, planning, and operation, and in related aspects of national and international security, in order to enhance the preparation of selected military officers for duty in all echelons of joint and combined commands."[13]

Officers with 10-16 years commissioned service are selected to attend this course[14] (Lieutenant through Commander - Middle Management level). Appendix (5) contains a listing of classes/ courses presented. The method of instruction is primarily by lecture (Guest and Faculty) with following question/answer periods supplemented by conferences (group study, group discussion, group problem solving), field trips, collateral reading, and a staff study or thesis.[15] The College is oriented toward providing the student with an understanding of the subjects presented, rather than with the learning of facts, and with an ability to think and solve problems in contrast to the learning of detailed techniques. No grades are given.[16]

A review of the "courses" offered reveals a wide variety with management application, but few which go into any depth. This course of instruction might well be called the "Armed Forces Familiarization Course".

G. Air University

The Air University, Maxwell Air Force Base, Alabama, conducts two courses of interest to this study: The Air Command and Staff College, and the Air War College.

The Air Command and Staff College is a 41 week course for officers with 9-13 years of commissioned service (Lieutenant through Lieutenant Commander - Middle Management), designed "To improve the professional ability of selected officers for command and staff assignments normal to the field grades..."[17] Among those courses taught pursuant to the accomplishment of its mission, this College offers an extensive number of military management courses as shown in Appendix (6). A degree of Masters of Business Administration from Auburn University may be awarded upon the completion of an additional 29 quarter hours from the following elective courses: Economic Theory (5 hrs), Statistical Analysis (5 hrs), Managerial Accounting (5 hrs), Management Problems (5 hrs), Marketing Management (5 hrs), Business Financial Management (5 hrs), Readings Course in Business Administration (4 hrs). Under certain conditions, a Master of Political Science degree may be pursued in lieu of the MBA.[18]

The Air War College is a 10 month course for officers with 15-22 years of commissioned service (Commander through Captain - Top Management), with the mission "To prepare senior

officers for high command and staff duty by developing in them a sound understanding of military strategy in support of national security policy..."[19] Some 108½ hours of management oriented instruction is included in the curriculum of this College (See Appendix (6)), although the course is slanted primarily toward political science. Throughout the course "learning is directed toward the development of knowledge, skills, and attitudes which are most significant to the profession of arms, particularly those related to the employment of aerospace power."[20] A degree of Master of Political Science from Auburn University may be awarded to students who complete an additional 29 quarter hours from the following elective courses: Seminar in Public Administration (5 hrs), Seminar in Comparative Government (5 hrs), Seminar in International Relations (5 hrs), Seminar in Constitutional Law (5 hrs), Government and Politics of Developing Nations (5 hrs), and Readings Course in Political Science (4 hrs). In certain cases, the Master of Business Administration may be awarded.[21]

H. Marine Corps Command and Staff College

The Marine Corps Command and Staff College, Marine Corps Education Center, Marine Corps Development and Education Command, Quantico, Virginia, presents a 42 week course for officers in the equivalent ranks of Lieutenant Commander and Commander (Middle and Top Level Management), and is designed

> "To provide professional education (to selected officer) to prepare them for command at the regiment/group level; for staff duty at division/wing and higher Fleet Marine Force levels; and for duties appropriate to the grade of colonel with the departmental, combined, joint, and high level service organizations."[22]

Among other subjects, the course includes those courses in military management listed in Appendix (7). One of the stated objectives of the course is "To qualify senior officers in the modern management techniques which have become so important within the national military establishment."[23] To this end the College devotes 182 hours of instructional time, in addition to a number of courses which have managerial application.[24]

I. Industrial College of the Armed Forces

The Industrial College of the Armed Forces, Fort Lesley J. McNair, Washington, D. C., provides a 42 week course for officers with 16 to 23 years of commissioned service (Commander through Captain - Top Management), in a format geared to reflect an increased emphasis on the management of resources under any and all conditions, and with "the economic, industrial, scientific, and technological aspects of national security... (being) considered in the broad context of national and world affairs and the interrelated military, political, and social factors impacting on national security."[25] If the preceeding appears to imply that the course is basically management oriented, the impression is an accurate one. Appendix (8) reflects courses which support this posture. Not only is ICAF management oriented, but it is also student oriented, with courses of study being tailored around each individual student's background and experience, both practical and academic.[26] So complete and comprehensive is the ICAF curriculum, that a Master of Science in Business Administration may be earned following graduation from ICAF by taking "special classes

lasting a few weeks" at the George Washington University (to do so a student must have enrolled in the George Washington University master's degree program at the beginning of the academic year at ICAF).[27]

Lieutenant General August Schomburg, USA, in 1968, as Commandant of ICAF, most appropriately describes the emphasis of education at ICAF in talking of the mission of the College:

> "The mission of the College, as the capstone of our military educational system in the management of national resources, is to prepare outstanding senior Armed Services officers and Government officials for high command, staff, and management positions. To this end, the College conducts an intensive ten-month course for resident students in the economic, social, political, technological, and military aspects of national security management.....
>
> During the past three years, major progress has been made in clarifying educational objectives, encouraging participative learning, deepening student involvement, tailoring instruction to the individual student, and bringing college programs abreast of the management explosion."[28]

J. National War College

The National War College, Fort Lesley J. McNair, Washington, D. C. offers a 42 week course for officers with 16-25 years commissioned service (Commander through Captain (and possibly flag rank) - Top Management). The purpose of the instruction at the College is

> "..to enhance the preparation of selected personnel of the Armed Forces and State Department for the exercise of joint and combined high-level policy, command and staff functions and for the planning of national strategy, by the study of those agencies of government and those military, economic, scientific, political psychological and social factors of power potential which are essential parts of national security."[29]

A listing of individual courses is not available to this study; however, the areas of study undertaken at the College are

shown in Appendix (9) and appear to be management oriented to some degree.

K. U. S. Army Management School

The U. S. Army Management School, Fort Belvoir, Virginia, conducts two short courses dealing specifically with management; The Army Management Course (three weeks, for Lieutenant Colonels or above), and the Army Management Orientation Course (5½ days, for general officers).[30] Individual course listings are not available to this study; however, the general course outlines are shown in Appendix (10).

L. Navy Management Systems Center

The Navy Management Systems Center, Monterey, California, presents basically two short courses specifically related to the study of management: the Defense Management Systems Course (4½ weeks, for Commanders through Captain), and the Station Management Systems Course (4 weeks, for Lieutenant through Captain). The curricula which support these courses is shown in Appendix (11).

The Defense Management Systems Course was established in response to the ever increasing demands within the Department of Defense for the use of the most modern management tools available. The basic objective of this course "..is to develop in the participant an appreciation of the concepts, principles, and methods of defense management."[31]

The Station Management Systems Course "is oriented to the prospective commanding officer, is designed to assist him in the transition from 'command afloat' to 'management ashore', and is intended to develop in the participant, an improved

appreciation and knowledge of the concepts, principles, and methods of shore station management."[32]

M. Summary

Many of the courses listed barely scratch the surface of management education for middle and top management level personnel. A few, such as the Industrial College of the Armed Forces, The Air University, and the Marine Corps Command and Staff College, present a far-ranging and broadly based management educational program. The Naval Academy has an excellent management program, both major and minor, providing a strong base for the lower level Navy and Marine Corps manager. The availability of these schools notwithstanding, the Navy and Marine Corps cannot meet their requirements for management education -- there simply are not sufficient academic billets to provide all officers the opportunity of increasing their managerial knowledge through attendance at any school. The Navy and Marine Corps of necessity must continue to pursue the policy of making the officers with the highest potential available, but denying the opportunity for further education to those officers of lesser demonstrated ability.

III NAVAL POSTGRADUATE SCHOOL MANAGEMENT CURRICULUM

A. General Discussion

The above section has described the most prevalent type of management education offered by the military. The present section will concentrate on the details of the management curriculum of the Naval Postgraduate School, Monterey, California. This school occupies an unusual position in that

it functions both as an academic institution and as part of the military service. Consequently, the management education it offers must be tailored to the needs of the Navy while adhering to the accreditation standards of civilian universities.

The students selected for this curriculum must have demonstrated excellent performance of duty, have outstanding career potential, possess a baccalaureate degree with overall academic performance of at least C+, and represent the middle management level. The average total time of commissioned service is about 10 years, although some Commanders/Lieutenant Colonels attend with 18 years or more time in service. Recently the immediate master's program has provided a small number of Ensign/Second Lieutenants for the curriculum. Current enrollment is about 150 students with a projection of 195 for fiscal year 1970.

The curriculum examination to be made of this school will consist of the following sections:

Section B - Original Objectives of the Management Courses Presented at Monterey.

Section C - Management Curriculum Development. This section highlights the major curriculum changes that have taken place since June 1956.

Section D - Development of the Management Curriculum. This section consists of a matrix showing the development, year by year, from the academic year 1957-1958 to today. Appendix (12) offers a graphical representation of the matrix.

Section E - Management Curriculum Changes.

Section F - Conclusions

Section G - Recommendations

B. Original Objectives of the Management Courses Presented at Monterey.

The following information was provided by Professor William H. Church, Professor of Management at the Naval Postgraduate School, who assisted in formulating the original objectives of the management curriculum in 1956. At this time he was serving in the Office of the Secretary of the Navy. According to Professor Church, no official revision of these objectives has occurred since their initial formulation.

The eight objectives stated for the curriculum were:

1. Ability to orient quickly to new or different management environment or new management situations.

2. Ability to diagnose significant management problems and to recognize areas of strength as well as weakness.

3. Ability to build support for new ideas up and down the chain of command and to sell improvements.

4. Ability to achieve results despite obstacles thrown in one's path.

5. Ability to recognize the possibility of application of advanced industrial management or operational practices to the specialized industrial needs of the Bureau.

6. Ability to recognize management problems stemming from out-moded policies that require considerable time to correct and ability to recognize management problems susceptible to correction within one's tour of duty.

7. Ability to recognize ways and means of using established Navy systems and procedures to accomplish desired results.

8. Ability to apply acceptable and appropriate managerial criteria and administrative procedures in organizing for action.[33]

C. Management Curriculum Development[34]

The following major changes have occurred in the curriculum since its initial formulation:

June 1956 - Naval Management School established as a component of Naval Postgraduate School.

February 1957 - First class convened and was comprised of all Supply and CEC officers. Curriculum was five months and led to a certificate of completion.

August 1957 - Curriculum taught in two parts - one for Supply Corps officers and the other part for all non-Supply officers.

September 1958 - One uniform course for all codes, supplemented by a Supply Management Seminar.

November 1958 - Superintendent NPGS recommended to Chief of Naval Personnel that course be extended from five months to a full ten month, four-term, academic year. Recommendation contended that management education for Naval Officers could be provided more effectively at NPGS than at civilian schools, without omission of any essential coverage, and at considerable monetary savings.

May 1960 - Chief Naval Personnel approved the ten month Navy Management Program. Admission requirements established as baccalaureate degree, or the equivalent, with at least a "C" average. The Master of Science in Management degree would be awarded for those qualifying.

August 1962 - Navy Management School disestablished and academic functions transferred to newly created Management Department. Administrative and curricular responsibilities for both Management and Operations Analysis curricula assigned to newly established Curricular Office for these two curricula.

August 1964 - Chief of Naval Personnel approved proposal for implementation of a five term, 12 month, curriculum. This permitted coverage of basic instruction in economics, mathematics, and accounting.

Year of 1967 - (a) Dual input to Management curriculum began with convening dates January and July.

31 March 1967 - (b) Chief Naval Personnel approved change in curriculum title from Naval Management to Management. This eliminated implication that management graduate degree program was limited to only the Navy.

(c) Entire school converted from term to quarter system. No change to curriculum length of 12 months.

D. Development of the Management Curriculum

The following matrix (Table 1, following page) presents the evolution of the Management curriculum in tabular form. The breakdown is by the percentages of total hours in the overall course of instruction devoted to particular subject areas, rather than by an analysis of the details of actual subject content year by year. Graphic representation of the matrix is presented in Appendix (12) for additional reference.

E. Management Curriculum Changes

It is evident that the Management curriculum content has undergone dramatic changes. (Note also Appendix (12)). Quantitative methods has grown from the 3% level in 1956 to today's 34% level. Conversely, Personnel Administration has moved from a high of 31%, when the Management School was established in 1956, to today's status of strictly an elective subject. These changes to the Management curriculum have

Evolution of the Management Curriculum at the Naval Postgraduate School
1957 to 1970

Academic Year	1957-1958[35]	1958-1959[36]	1959-1960[37]	1960-1961[38]	1961-1962[39]	1962-1963[40]	1963-1964[41]
Behavioral Science	4/68 6%	46/360 13%	45/381 12%	7.5/57 13%	8/60 13%	8/60 13%	9/65 14%
Economics	None	12/360 3%	12/381 3%	9/57 16%	8/60 13%	8/60 13%	9/65 14%
Financial Mgt	10/68 15%	56/360 16%	54/381 14%	7.5/57 13%	8/60 13%	8/60 13%	8/65 12%
Quant.Methods	2/68 3%	28/360 8%	28/381 8%	4.5/57 8%	5/60 8%	5/60 8%	12/65 18%
Mgt Policy	8/68 11%	18/360 5%	54/381 14%	6/57 10%	3/60 5%	3/60 5%	3/65 5%
Elective Sequence	Open only to qualified students	None	None	9/57 16%	13/60 22%	13/60 22%	9/65 14%
Material Mgt	23/68 34%	138/360 38%	126/381 33%	9/57 16%	7/60 12%	7/60 12%	7/65 11%
Personnel Admin	21/68 31%	62/360 17%	62/381 16%	4.5/57 8%	4/60 7%	4/60 7%	5/65 6%
Research Paper	None	None	None	None	4/60 7%	4/60 7%	4/65 6%
Total Hours Req'd for Degree	68 Required hrs at rate of 21 credit hrs ea wk	360 Class Contact hrs for Cert. of completion	381 Class Contact hrs for Cert. of completion	57 Term hrs	60 Term hrs	60 Term hrs	65 Term hrs
Composition	Two 9 wk Terms	20 wk of Instruction	20 wk of Instruction	4 Terms	4 Terms	4 Terms	4 Terms
Duration	5 Months	5 Months	5 Months	10 Months	10 Months	10 Months	10 Months

Academic Year	1964-1965[42]	1965-1966[43]	1966-1967[44]	1967-1968[45]	1968-1970[46]
Behavioral Science	9/85 10%	9/85 10%	9/80.5 11%	8/67 12%	8/67 12%
Economics	8/85 9%	8/85 9%	8/80.5 10%	12/67 18%	12/67 18%
Financial Mgt	9/85 10%	9/85 10%	10/80.5 12%	8/67 12%	8/67 12%
Quant.Methods	18/85 22%	22/85 26%	21.5/80.5 27%	23/67 34%	23/67 34%
Mgt Policy	4/85 5%	4/85 5%	4/80.5 5%	4/67 6%	4/67 6%
Elective Sequence	20/85 24%	20/85 24%	19/80.5 23%	12/67 18%	12/67 18%
Material Mgt	7/85 8%	3/85 4%	3/80.5 4%	Elective Subj.	Elective Subj.
Personnel Admin	4/85 5%	4/85 5%	4/80.5 5%	Elective Subj.	Elective Subj.
Research Paper	6/85 7%	6/85 7%	2/80.5 3%	Elective Subj.	Elective Subj.
Total Hours Req'd for Degree	85 Term Hrs	85 Term Hrs	80.5 Term Hrs	67 Qtr Hrs	67 Qtr Hrs
Composition	5 Terms	5 Terms	5 Terms	4 Quarters	4 Quarters
Duration	12 Months	12 Months	12 Months	12 Months	12 Months

been substantial and no doubt the future will see additional variations. The important point is that apparently the curriculum is being reviewed and revised continuously in order to achieve the optimum combination that will further its objectives.

The current Management Curriculum objective is:

> "To provide officers with increased education in management which will improve their capabilities for organizing, planning, directing, coordinating and controlling activities in which the resources of men, money, and materials are combined to accomplish Navy objectives."[47]

For comparison and to see if the objective or mission of the Management Curriculum has also dramatically changed since the initial class convened in February 1957, the following was found in the appropriate catalogue for that academic year:

> "The function of the Management School is to provide specialized education at the Postgraduate level for selected naval officers in order that they may serve effectively in the performance of their assigned duties. The broadening of the mental outlook and resultant increase in professional knowledge will enable the officers to better meet the duties, responsibilities, and complexities of higher rank, thereby improving the efficiency of the Navy."[48]

Essentially the objective or mission of the curriculum remains the same. This suggests changes have occurred due to modern technological developments and a changing specification of the needs of the Navy.

F. Summary

Chapter II of this study concluded in Section II of Chapter II that the subject of management education has been over-exposed generally and almost everyone will agree that management education is needed in the Navy; however, to date,

no one has come forth and outlined the requirements concerning just what subject areas are needed. By the present research into the management education offered at the Naval Postgraduate School, the conclusion is confirmed. However, during the twelve years the education has been offered, it is evident that great efforts have been and are being made to provide an appropriate curriculum. Whether the optimum solution will ever be attained is unknown, but if the program of instruction can be taught by the best faculty available, the results should be highly satisfactory. Only through constant review and appropriate changes, coupled with an excellent faculty, can the management curriculum provide the appropriate education to meet the needs of the Naval Service.

G. Recommendations

The following recommendations are offered for improving the Naval Postgraduate School Management Curriculum.

1. That the Management Curriculum be continued to be reviewed annually or on an "as needed" basis. Included in this review should be student survey results to gain ideas from the student body, who are dedicated and experienced officers in their own right.

2. That the annual visits of representatives from the Bureau sponsor(s) be requested frequently so that direct, up-to-date contact can be maintained.

3. That special effort be made to obtain funds to permit field trips for all management students. The field trips could expose the officer student to business firms, local government/DOD offices, and would provide additional education in the practical area.

4. That no effort be spared to obtain the most outstanding individuals as members of the faculty. Special authorization should be obtained to provide sufficient funds to offer proper faculty salaries in order to compete with other civilian institutions of education.

IV FINAL CONCLUSIONS OF THE STUDY

In response to the original question with which this study began, "What kind of management education does the military officer require?", the following conclusions are drawn:

1. The career military officer needs as much management education as he can acquire. In this, the needs of the service, availability for assignment, career performance, scholastic qualifications all have their bearing. The need is undeniable in today's complex, technologically advancing situation, but the opportunity for management education is, unfortunately, limited.

2. This need for management education is increasing, particularly as the military becomes more integrated with the industrial/business complex. The Department of Defense is big business -- those who are responsible for its efficient functioning must be qualified to manage. This objective can be attained only through appropriate management education.

3. The needs of the service allow only the more highly qualified officers to attend advanced schooling. To carry this restriction further, schooling is usually restricted to two long courses (each in excess of 20 weeks), and only then if the officer displays excellent potential during his first

20 years of commissioned service. As a result it is obvious that the Navy and Marine Corps officer does not receive the amount of advanced education he needs. It it were possible, every officer should attend at least one middle management level school and one top management level school, preferably prior to being promoted to the rank of Captain/Colonel. Until this minimum level of management education is reached, the military officer will not only continue to feel the frustration of insufficient knowledge when dealing with managerial problems, but also the ire of his countrymen and congressmen when he is unable to measure up to their expectations of managerial proficiency. The services must press forward with their demands for more advanced education for their officers, or be faced with continued difficulties in meeting their missions and responsibilities.

4. As indicated in Sections II and III of the present Chapter, management education is offered the Navy and Marine Corps officer in a variety of schools and institutions, both military and civilian, for all levels of management - top, middle, and lower. The basic problem is not, "Where is it offered?", but rather it is, "Is it offered in sufficient quantity?" The answer to the latter question appears to be is that it is not offered in such quantity. Even if it were, the world situation today would preclude the Navy and Marine Corps from sending all their officers. Historically, this has always been part of the facts of life. To attend such a school, the service must have a sufficient inventory of officers to allow their attendance and still not draw down on the operating commands. Until Congress sees the value of additional advanced

education for more officers, the congressional ceiling on officer strength is not likely to be raised; if it is not raised, the services cannot send more officers to school.

5. Should management education be made a part of the career pattern of the military officer? We believe it should be. As a matter of fact, attendance at such advanced schooling is already a part of normal career planning. But again, the restrictions on officer strengths make such planning superfluous for all but the highly qualified officers.

6. The advanced education provided by the institutions discussed in this study prepares officers for management oriented duty at all levels within DOD. The short courses provide up-dating for those who attend (again, a very small percentage of the officer population). The longer courses educate the officer in the appropriate managerial levels for duty whereever he may be assigned, or so the curricula would lead us to believe. Some crucial factors in answering a question such as, for what careers does each level of advanced education prepare the officer, relates to how the individual curricula are implemented; to what instructors/professors are available to teach the necessary courses, and what their qualifications are; to what academic atmosphere exists at the individual schools; to what attitude the instructors/professors exhibit toward the school and toward the student; and to many other factors unobtainable and therefor unanswerable by this study.

APPENDIX (1)

UNITED STATES NAVAL ACADEMY
Annapolis, Maryland

UNITED STATES NAVAL ACADEMY

United States Naval Academy Curriculum*%

A.	Psychology: Individual Differences	3 Sem Hours
B.	Principles of Management	3
C.	Financial Management	3
D.	Material Management	3
E.	Personnel Administration	3
F.	Military Psychology	3
G.	Advanced Studies in Management	3
H.	The Economics of Defense	3
I.	Research Project	3
J.	Decision Theory	3
K.	Introduction to Psychology and Leadership	3
L.	Naval Operations Analysis	4
M.	Leadership and Military Law	3
N.	Games of Strategy	3
O.	Naval Strategy and Military Planning	3
P.	Methods of Operations Analysis	3
Q.	Applications of Operations Analysis	3
R.	Economic Analysis	3
S.	International Relations and Organization	3
T.	Comparative Economic Systems	3
U.	International Law	3
V.	Economic Statistics	3

* Source: United States Naval Academy Catalogue 1968-1969, United States Naval Academy, Annapolis, Maryland

% Management Program, plus other management oriented courses.

W.	Econometrics	3
X.	Administration in Government	3
Y.	Economic Developement	3
Z.	The Economics of Defense	3
AA.	Economics of Labor Relations	3
BB.	Matrix Theory	3
CC.	Probability and Statistics	3
DD.	Introduction to Mathematical Economics	3
EE.	Price Determination and Decision Making	3
FF.	Econometrics	3
GG.	Public Finance	3
HH.	Money and Banking	3
II.	Elements of Law	3
JJ.	Digital Computers	3
KK.	Naval Strategy and Military Planning	3
LL.	Applications of Computer Technology	4

Note: Not listed are the many courses offered in the Mathematics Department.

APPENDIX (2)

U. S. ARMY COMMAND AND GENERAL STAFF COLLEGE
Fort Leavenworth, Kansas

Command and General Staff Officer Course

U. S. ARMY COMMAND AND GENERAL STAFF COLLEGE

Command and General Staff Officer Course Curriculum*

A. General. While the actual curriculum is not available to this study, the general scope of the course is herein outlined, as it pertains to management-oriented subject areas.

B. Management-oriented subject areas

1. Action, organization, responsibilities, techniques, and supervision in planning and execution of command and general staff and director staff.

2. Integrated Army Information Programs.

3. Maintenance Planning and Supervision.

4. Army Command Management System.

5. Selected Management Control Techniques.

   a. Systems Analysis

   b. PERT

   c. Automatic Data Processing Systems

6. National Security Policy Planning.

7. Fundamentals of CONUS Logistics.

8. Current Overseas Combat Service Support Systems.

* Source: Formal Schools Catalog, Bureau of Naval Personnel, NAVPERS 91769-G, U. S. Government Printing Office, Section III

APPENDIX (3)

MARINE CORPS AMPHIBIOUS WARFARE COURSE
Quantico, Virginia

MARINE CORPS AMPHIBIOUS WARFARE COURSE

Marine Corps Amphibious Warfare Course Curriculum*

A.	Staff Organization and Functioning	2 Hours
B.	Command and Staff Planning	26
C.	Operational Logistics	15
D.	Effective Leadership	4
E.	The Commander and his Staff in Operations	5
F.	Maintenance, Supply, Fiscal, and Management Matters	21
G.	Automatic Data Processing	15
H.	Administration and Support of the U.S. Marine Corps, Personnel Aspects	2
I.	Administration and Support of the U.S. Marine Corps, Logistical Aspects	2
I.	Preparing and Conducting Conferences	3

* Source: Syllabus, Amphibious Warfare Course, 1-69 & 2-69, Marine Corps Amphibious Warfare School, Education Center, Marine Corps Developement and Education Command, Quantico, Virginia, May 1968

APPENDIX (1)

UNITED STATES NAVAL ACADEMY
Annapolis, Maryland

UNITED STATES NAVAL ACADEMY

United States Naval Academy Curriculum*%

A.	Psychology: Individual Differences	3 Sem Hours
B.	Principles of Management	3
C.	Financial Management	3
D.	Material Management	3
E.	Personnel Administration	3
F.	Military Psychology	3
G.	Advanced Studies in Management	3
H.	The Economics of Defense	3
I.	Research Project	3
J.	Decision Theory	3
K.	Introduction to Psychology and Leadership	3
L.	Naval Operations Analysis	4
M.	Leadership and Military Law	3
N.	Games of Strategy	3
O.	Naval Strategy and Military Planning	3
P.	Methods of Operations Analysis	3
Q.	Applications of Operations Analysis	3
R.	Economic Analysis	3
S.	International Relations and Organization	3
T.	Comparative Economic Systems	3
U.	International Law	3
V.	Economic Statistics	3

* Source: United States Naval Academy Catalogue 1968-1969, United States Naval Academy, Annapolis, Maryland

% Management Program, plus other management oriented courses.

W.	Econometrics	3
X.	Administration in Government	3
Y.	Economic Developement	3
Z.	The Economics of Defense	3
AA.	Economics of Labor Relations	3
BB.	Matrix Theory	3
CC.	Probability and Statistics	3
DD.	Introduction to Mathematical Economics	3
EE.	Price Determination and Decision Making	3
FF.	Econometrics	3
GG.	Public Finance	3
HH.	Money and Banking	3
II.	Elements of Law	3
JJ.	Digital Computers	3
KK.	Naval Strategy and Military Planning	3
LL.	Applications of Computer Technology	4

Note: Not listed are the many courses offered in the Mathematics Department.

APPENDIX (2)

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Fort Leavenworth, Kansas

Command and General Staff Officer Course

U. S. ARMY COMMAND AND GENERAL STAFF COLLEGE

Command and General Staff Officer Course Curriculum*

A. General. While the actual curriculum is not available to this study, the general scope of the course is herein outlined, as it pertains to management-oriented subject areas.

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2. Integrated Army Information Programs.

3. Maintenance Planning and Supervision.

4. Army Command Management System.

5. Selected Management Control Techniques.

   a. Systems Analysis

   b. PERT

   c. Automatic Data Processing Systems

6. National Security Policy Planning.

7. Fundamentals of CONUS Logistics.

8. Current Overseas Combat Service Support Systems.

* Source: Formal Schools Catalog, Bureau of Naval Personnel, NAVPERS 91769-G, U. S. Government Printing Office, Section III

APPENDIX (3)

3

MARINE CORPS AMPHIBIOUS WARFARE COURSE
Quantico, Virginia

MARINE CORPS AMPHIBIOUS WARFARE COURSE

Marine Corps Amphibious Warfare Course Curriculum*

A.	Staff Organization and Functioning	2 Hours
B.	Command and Staff Planning	26
C.	Operational Logistics	15
D.	Effective Leadership	4
E.	The Commander and his Staff in Operations	5
F.	Maintenance, Supply, Fiscal, and Management Matters	21
G.	Automatic Data Processing	15
H.	Administration and Support of the U.S. Marine Corps, Personnel Aspects	2
I.	Administration and Support of the U.S. Marine Corps, Logistical Aspects	2
I.	Preparing and Conducting Conferences	3

* Source: Syllabus, Amphibious Warfare Course, 1-69 & 2-69, Marine Corps Amphibious Warfare School, Education Center, Marine Corps Developement and Education Command, Quantico, Virginia, May 1968

APPENDIX (4)

U. S. NAVAL WAR COLLEGE
Newport, Rhode Island

The Command and Staff Course

The Naval Warfare Course

U. S. NAVAL WAR COLLEGE *&

The Command and Staff Course Curriculum

A. International Law

B. International Organizations

C. International Relations

D. Military Management

E. Fundamentals of Strategy

F. The Military Planning Process

G. Current and Future Weapons and Weapons Systems

H. Doctrine and Tactics for the Employment of Current and Future Weapons and Weapons Systems

I. Basic Logistics

J. Organization and Procedures of Military Staffs and Civilian Agencies Responsible for the National Security

K. Fundamentals of Joint and Combined Operations

The Naval Warfare Course Curriculum

A. Fundamentals of Warfare and Maritime Strategy

B. Organization for National Security

C. International Law

D. International Relations

E. Comparative Studies of Major World Powers

F. The Formulation of National Interests, Objectives, Policies, and Strategy

G. Counterinsurgency

* Source: U.S. Naval War College, 1966-1968, U.S. Naval War College, Newport, Rhode Island, June 1966

& Individual Course Hours not available to this study.

APPENDIX (5)

ARMED FORCES STAFF COLLEGE
Norfolk, Virginia

ARMED FORCES STAFF COLLEGE

Armed Forces Staff College Curriculum*%

A.	Conference Techniques	1 Hour
B.	Military Briefing	1
C.	Law and Conduct of International Relations	2
D.	Logistics of the Army	2
E.	Logistics of the Navy	3
F.	Logistics of the Air Force	2
G.	Systems Developement in the U.S. Air Force	2
H.	The Organization and Operation of the Department of State	2
I.	Systems Analysis	2
J.	Management at the OSD Level	2
K.	National Security Policy Making	1
L.	Public Affairs	2
M.	Organization and Command Relationships	31
N.	Organization and Functions of the Joint Chiefs of Staff and the Joint Staff	2
O.	Organization and Functions of the Department of Defense	2
P.	Introduction to the Joint Planning Process	1
Q.	Land Forces Planning	10
R.	Naval Forces Planning	10
S.	Air Forces Planning	10

* Source: Armed Forces Staff College, Catalogue, Academic Year 1969, 45th Class, Armed Forces Staff College, Norfolk, Virginia.

% Only those classes having managerial application are shown

T.	Basic Logistic Planning Computations	15½ Hours
U.	Introduction to Logistics Planning	1
V.	Joint Logistic Support	2
W.	Long-Range Concepts for National Security	2
X.	Joint Planning and Resource Management Systems	2
Y.	Quantitative Analysis	2½
Z.	Managerial Direction and Control Techniques	2
AA.	Operations Research	2
BB.	Introduction to Automatic Data Processing	1
CC.	Principles and Procedures of Computer Operations	4½
DD.	Crisis Management	2
EE.	Military Management Information Systems	1
FF.	A Case Study of ADP Application to Unified Command Planning (CINCSTRIKE OPLAN 581)	3
GG.	U. S. European Command Planning System	2
HH.	Joint Headquarters and Command Control Activities	1
II.	Joint Task Force Planning	32
JJ.	Limited War Planning	69½
KK.	Introduction to Combined/Unified Command Planning	1

APPENDIX (6)

AIR UNIVERSITY
Maxwell AFB, Alabama

Air Command and Staff College

Air War College

6

AIR UNIVERSITY

Air Command and Staff College Curriculum*

A.	Command and Leadership	55 Hours
1.	Introduction to Military Management	3
2.	The Management Process	3
3.	The Changing Role of the Military Leader	3
4.	Command Responsibility	1
5.	Command Authority	1
6.	Concepts of Leadership	3
7.	Psychology of Leadership	2
8.	Group Dynamics	4
9.	Group Process	3
10.	Human Relations in Management	2
11.	The Commander and the Individual	3
12.	The Commander and Public Affairs	2
13.	Case Studies in Command Responsibilities	3
14.	Communication in Command and Staff Relationships	1
15.	Advocacy	1
16.	Effective Counseling	3
17.	Negotiation Techniques	6
18.	Case Study of a Commander in Combat	6
19.	Command in Action Seminar	3
20.	A Personal Concept of Command	2

* Source: Air University Catalog, 1968-69, Air University, Maxwell AFB, Alabama, August 1968

B.	Analysis for Military Decisions	47 Hours
1.	Mathematics Review	5
2.	Statistics	6
3.	Probability	3
4.	Systems Analysis	3
5.	Economic Analysis	6
6.	Decision Theory	3
7.	Modeling and Simulation	3
8.	Cost Analysis & Measures of Effectiveness	4
9.	Basic Computer Concepts	3
10.	Linear Programming	5
11.	USAF Study Presentation	3
12.	Leadership of Analysis Efforts	3
C.	Resource Management	99 Hours
1.	Organizational Theory	3
2.	Organization for Defense	3
3.	Military Staff Organization of the DOD and JCS	1
4.	Joint and Combined Staff Duty	2
5.	The Air Staff	2
6.	The Commander and His Staff	2
7.	The National Military Planning System	1
8.	JCS Planning System	1
9.	The USAF Planning System	2
10.	The DOD Programming System	1
11.	The USAF Programming System	1
12.	USAF Programming Documents Seminar	5
13.	The Budget Process	1

14.	Planning, Programming and Budgeting in Perspective	3
15.	Programming Concepts and Methods	7
16.	Management Control	1
17.	Management Control Systems Seminar	2
18.	Financial Management in the Federal Government	3
19.	Resource Management Systems	2
20.	Determining Manpower Resource Requirements	1
21.	Personnel Programming	3
22.	Personnel Performance Appraisal	3
23.	Information System: Personnel	1
24.	USAF Personnel Research	1
25.	USAF Officer Promotion Exercise	6
26.	USAF Labor/Management Relations	3
27.	Research and Developement Management	2
28.	Management by Systems	1
29.	The System Program Director	2
30.	The Procurement Process	1
31.	Network Management Techniques	1
32.	Network Management Techniques Seminar	2
33.	DOD Logistics Management	1
34.	USAF Logistics Management	2
35.	Weapon System Acquisition Seminar	9
36.	Operation Staff Management Responsibilities	1
37.	Mission Management: Concepts and Techniques	1
38.	Operation Staff Management Responsibilities Seminar	2

39.	LOG MAN X	11
40.	Military Resource Management	2

Air War College

A.	The Economics of National Defense and Resource Management	24½ Hours
1.	Introduction to Military Decision Making	1
2.	DOD Planning, Programming and Budgeting	2
3.	Resource Management Systems	3½
4.	Economics in Military Perspective	2
5.	National Income Accounting: Measuring the Economic Element of National Power	1½
6.	National Income Determination: Maintaining a Fully Employed Economy	1½
7.	National Income Determination: Equilibrium, Inflation and Recession	1½
8.	Fiscal Policy: The Use of Government Expenditures and Taxation to Achieve Economic Stability and Growth	3
9.	Monetary Policy and Debt Management	3
10.	International Trade and Finance	1½
11.	U.S. Economic Goals and Policies	2½
12.	The National Economy and National Security	1½
B.	Fundamentals of Analytic Decision Making	35 Hours
1.	A Framework for Decision Making	2½
2.	Analysis of Sequential Decisions	1½
3.	Mathematical Programming Concepts	1½

4. Simulation in Inventory Control 1½

5. Analysis of Decisions Under Uncertainty 2½

6. Economics of Information 1½

7. Simulation and Decision Theory 2½

8. Quantitative Methods and Long Range Planning 2½

9. Risk and Expected Preference 1½

10. Decision Theory Summary 1½

11. Fundamentals of Economic Analysis 3

12. Efficiency in Using Defense Resources 5

13. Computer Fundamentals 1

14. Computer War Gaming 1

15. The Role of the Computer in Systems Analysis and Operations Research 2

16. The Role of the Computer in Command and Control Systems 1

17. Information Systems for Management and Decision Making 1

18. The Role of the Computer in Management Information Systems 2

C. Systems Analysis 49 Hours

1. TEMPO Military Planning Game 7½

2. Systems Analysis Techniques in Defense 3

3. Cost Analysis 1

4. Measures of Systems Effectiveness 2

5. A Case Study in Industrial Systems Analysis 3

6. Group Problem in Systems Analysis 8½

7. Cost Effectiveness in Military Analysis - A Case Study 3

8. A Case Study of a Recent Air Force Analysis 3

9. Individual Problem in Systems Analysis 15

10. The Role of Systems Analysis in the Selection of Forces and Strategy 3

APPENDIX (7)

MARINE CORPS COMMAND AND STAFF COLLEGE
Quantico, Virginia

MARINE CORPS COMMAND AND STAFF COLLEGE

Marine Corps Command and Staff College Curriculum*

A.	Management Techniques and Procedures	45 hours
1.	Introduction to Military Management	2
2.	Executive Skills in Management	2
3.	Program Evaluation Review Technique (Pert)	3
4.	Planning and Programming within DOD	1
5.	Budgeting within DOD	1
6.	Joint Planning	1
7.	Marine Corps Planning	1
8.	Marine Corps Programming	2
9.	Financial Management	2
10.	DOD Resource Management Systems	2
11.	Marine Corps Financial Management	2
12.	Financial Management within the Department of the Navy	2
13.	GAO View of DOD Management	2
14.	Marine Corps Logistics Management	2
15.	DOD Logistics Management	2
16.	Supply Management	2
17.	Marine Corps Supply Management	2
18.	Unit Supply Accounting	2
19.	Marine Corps Maintenance Management	3
20.	Manpower Management	2
21.	Marine Corps Personnel Management	2
22.	Marine Corps ADP Applications	3

* Source: Syllabus, Marine Corps Command and Staff College, Academic Year 1967-1968, Marine Corps Educational Center, Marine Corps Schools, Quantico, Virginia, September 1967

23.	Current Computer Applications	2
B.	Management Games	23 hours
1.	Monopologs	4
2.	Tempo	7
3.	Log-Man-X	12
C.	Computer Science	50 hours
1.	Computer Science	50
D.	Systems Analysis	50 hours
1.	Systems Analysis	50
E.	Naval Justice	14 hours
1.	Military Justice	14

APPENDIX (8)

INDUSTRIAL COLLEGE OF THE ARMED FORCES
Fort Lesley J. McNair, Washington, D.C.

INDUSTRIAL COLLEGE OF THE ARMED FORCES

Industrial College of the Armed Forces Curriculum*

A. Management: An Introductory Survey

B. Basic Resources

C. Industrial Resources

D. National Security Problems and Policies

E. National Economic Problems and Policies

F. Management in the Department of Defense

G. Field Research - a Management Study

H. Contemporary Economic Analysis (Micro and Macro)

I. Executive Action (Concepts and Principles of Management)

J. Scientific Decision Making (Survey Course)

K. Cost Analysis

L. Automatic Data Processing

M. Theory and Management of Systems

N. Law for the Defense Manager

O. International Politics

* Source: Industrial College of the Armed Forces, 1967-1968, Industrial College of the Armed Forces, Fort Lesley J. McNair, Washington, D.C.
Individual Course Hours Not Available

APPENDIX (9)

NATIONAL WAR COLLEGE
Fort Lesley J. McNair, Washington, D. C.

NATIONAL WAR COLLEGE

National War College Course Content*

A. General. While the actual curriculum is not available to this study, the general scope of the course is herein outlined.

1. Analysis of the nature and interdependence of the several factors of national power of the United States and other nations.

2. Study of the integration of military and foreing policy.

3. Study of the role of the United Nations and other means to avoid armed conflict between nations.

4. Determination of the influence of the possession or deficiency of economic, scientific, political, psychological and social resources upon national security.

5. Study of the national interests and objectives of significant nations with respect to their international relations, areas of disagreement and conflict, and policies designed to prevent war.

6. Study of:

a. The military force necessary to implement policy in peace and war.

b. Strategy and war planning.

c. The impact of science and technology upon the armed forces.

d. Departmental and interdepartmental problems which concern the national security.

e. The employment of joint and combined forces as related

* Source: Formal Schools Catalog, Bureau of Naval Personnel, NAVPERS 91769-G, U. S. Government Printing Office, Section III

to national and coalition objectives and policies.

APPENDIX (10)

10

U. S. ARMY MANAGEMENT SCHOOL
Fort Belvoir, Virginia

Army Management Course

Army Management Orientation Course

U. S. ARMY MANAGEMENT SCHOOL*

Army Management Course Curriculum

A.	Managerial Action of the Organization and the Army Command Management System	39 hrs
B.	Managerial Action of the Individual	46 hrs
C.	Executive Practice	48 hrs
	Total Hours	133

Army Management Orientation Course Curriculum

A.	Managerial Action of the Organization and the Army Command Management System	18 hrs
B.	Managerial Action of the Individual	17 hrs
C.	Executive Practice	17 hrs
	Total Hours	52

* Source: U.S. Army Management School Catalog, 1960-1961, U.S. Army Management School, Fort Belvoir, Virginia

APPENDIX (11)

11

NAVY MANAGEMENT SYSTEMS CENTER
Monterey, California

Defense Management Systems Course

Station Management Systems Course

NAVY MANAGEMENT SYSTEMS CENTER*

Defense Management Systems Course Curriculum

A. Orientation

1. Force Structure Game
2. Introduction to the Course
3. Introduction to Defense Management Systems

B. Management Theory

1. Functions of Management
2. National Objectives
3. The World Environment
4. International Aspects of Defense Planning

C. Quantitative Reasoning

1. Introduction to Quantitative Reasoning
2. Basic Tools of Quantitative Reasoning
3. How Quantification Aids Decisionmaking
4. Non-Linear Functional Forms
5. Building and Using Mathematical Models in Management Decisionmaking
6. Mathematics of Marginal Reasoning
7. Risk, Certainty and Uncertainty
8. A Statistical Approach to Decisionmaking
9. Describing Data with Statistics
10. Effective Management Under Conditions of Certainty, Risk and Uncertainty
11. Probability and Statistics: Aid to Management
12. Deciding When Significant Change Has Occurred
13. Predicting the Future to Improve Decisionmaking

* Source: Navy Management Systems Center, Monterey, California

* Course hours not available

14. Deciding What Causes Change

15. Planning Experience to Get New Knowledge I and II

D. Economic Reasoning

1. Functioning of an Economic System

2. Resources Available for Defense

3. Economy and Efficiency

4. Decisionmaking at the Margin

5. Economic Concepts

6. Cost Concepts

7. Marginal Reasoning

8. Production Analysis

9. Exchange Curves

10. Techniques of Economic Analysis

11. Cost-Effectiveness Analysis

12. Input-Output Analysis

E. Analysis: Aid to Decisionmaking

1. Analysis of Dynamic Problems

2. Cost Analysis

3. Cumulative Cost-Quantity Relationships

4. Service Cost Models

5. Introduction to Effectiveness Analysis

6. Methodology of Effectiveness Analysis

7. Applications of Effectiveness Analysis

8. Sensitivity Analysis

9. The Computer and Analysis

10. Systems Analysis

11. Decision Theory

F. Resources Management Systems For Problems of Strategy, Implementation and Operations

1. Management Problems of Policy
2. DoD Concept of Strategic Planning
3. Systems Analysis and Strategic Planning
4. Problems of Implementation
5. Management Control
6. Management Accounting
7. Evolution of Federal Budgeting
8. Program Budgeting
9. Program Management
10. Five-Year Defense Program
11. Program Analysis
12. Decisionmaking Techniques of Control
13. Budget Presentation and Approval
14. Budget Execution
15. Resources Management Systems
16. Project PRIME
17. Problems of Operations
18. Analysis of Operations

Station Management Systems Course Curriculum

A. Orientation

1. Resource Allocation Game Briefing and Organization
2. Introduction to the Course
3. Organize Discussion Groups

B. Management Theory

1. Elements of Management
2. Dimensions of Management
3. Techniques of Management
4. Shore Establishment Organization

C. Quantitative Reasoning

1. Fundamentals of Quantitative Reasoning
2. Role of Quantification in Decisionmaking
3. Mathematical Models in Management
4. Decision States
5. Statistical Decision Theory
6. Descriptive Strategies
7. Decision Strategies
8. Statistical Inference
9. Parametric Analysis
10. Quantitative Analysis of Operations

D. Managerial Economics

1. Resource Allocation
2. Essentials of Economic Analysis
3. Marginal Analysis
4. Relationships of Inputs to Outputs
5. Techniques of Marginal Analysis

6. Production Function

7. Characteristics of Costs

8. Output Measures

9. Capital Budgeting

E. Managerial Controls

1. Statistical Control

2. Forecasting Methods

3. Determining What Causes Change

4. Analytical Tools to Aid Management

5. Design of Managerial Accounting Systems

6. Computer Programming

7. Further Techniques for Management Control

8. Management Control Systems

F. Functional Management

1. Program Budgeting

2. RMS - PRIME and Station Management

3. The Navy Funding Process

4. Facilities Funding

5. Computer Usage

6. Facilities Planning

7. Facilities Management

8. Public Affairs

9. Managerial Psychology

10. Labor Relations

11. Manpower Management

12. Leadership

13. RMS - PRIME at CNABATRA

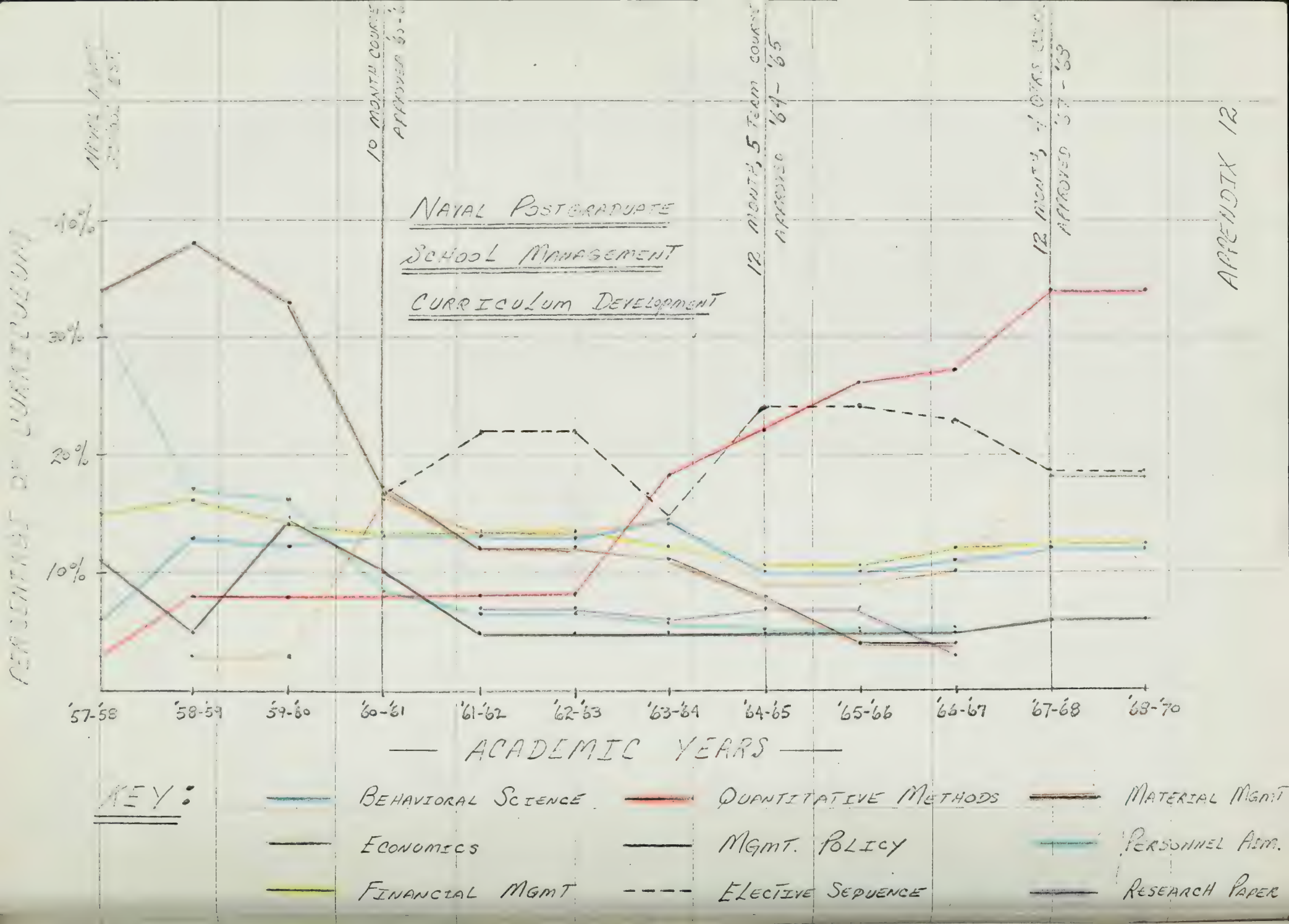
14. MILBASE Resource Allocation Simulation

APPENDIX (12)

NAVAL POSTGRADUATE SCHOOL

MANAGEMENT CURRICULUM

DEVELOPMENT


APPENDIX 12
NAVAL POSTGRADUATE SCHOOL MANAGEMENT CURRICULUM DEVELOPMENT
12 MONTHS, 5 TERM COURSE APPROVED '64 - '65
12 MONTHS, 4 QTR COURSE APPROVED '57 - '63
10 MONTH COURSE APPROVED '63 - '64
10%
20%
30%
'57-'58
'58-'59
'59-'60
'60-'61
'61-'62
'62-'63
'63-'64
'64-'65
'65-'66
'66-'67
'67-'68
'68-'70
ACADEMIC YEARS
KEY:
BEHAVIORAL SCIENCE
ECONOMICS
FINANCIAL MGMT
QUANTITATIVE METHODS
MGMT. POLICY
ELECTIVE SEQUENCE
MATERIAL MGMT
PERSONNEL ADM.
RESEARCH PAPER

APPENDIX (13)

FOOTNOTES

FOOTNOTES

1. Twining, Nathan F., Neither Liberty Nor Safety, Holt, Rinehart and Winston, New York, 1966, p. 193
2. Hayward, John T., "President's Hour", Lecture, U. S. Naval War College, Newport, R. I., 2 Oct. 1967
3. Grusky, Oscar, "The Effects of Succession: a Comparative Study of Military and Business Organizations", Morris Janowitz, ed., The New Military, Russell Sage Foundation, New York, 1964, p. 84
4. United States Naval Academy Catalogue 1968-1969, United States Naval Academy, Annapolis, Maryland, p. 1
5. United States Naval Academy Catalogue of Information 1964-1965, U. S. Government Printing Office, 1964; United States Naval Academy Catalogue 1965-1966, U. S. Government Printing Office, 1965, p. 148
6. Martin, Robert W., Jr., Unpublished research paper, "Motivational Aspects of the Management Curriculum, First Two Quarters, Naval Postgraduate School", December 1968, p. II-5; results of similar questionnaire contained in a study currently in progress, May 1969
7. Formal Schools Catalog, Bureau of Naval Personnel, NAVPERS 91769-G, U. S. Government Printing Office, p. III-6
8. Syllabus, Amphibious Warfare Course, 1-69 & 2-69, Marine Corps Amphibious Warfare School, Education Center, Marine Corps Development and Education Command, Quantico, Virginia, May 1968, p. 3
9. Formal Schools Catalog, op. cit., p. III-2

10. Ibid

11. U. S. Naval War College, Newport, Rhode Island, 1966-1968, U. S. Naval War College, Newport, Rhode Island, p. 20

12. Ibid., p. 6

13. Catalogue, Academic Year 1969, 45th Class, Armed Forces Staff College, Armed Forces Staff College, Norfolk, Virginia, p. 5

14. Formal Schools Catalog, op. cit., p. III-3

15. Armed Forces Staff College Catalogue, op. cit., pp. 8-9

16. Ibid., p. 6

17. Air University Catalog 1968-1969, Air University, Maxwell AFB, Alabama, p. 17

18. Ibid., p. 99

19. Ibid., p. 7

20. Ibid.

21. Ibid., p. 99

22. Syllabus, Marine Corps Command and Staff College, Academic Year 1967-1968, Marine Corps Command and Staff College, Marine Corps Educational Center, Marine Corps Schools, Quantico, Virginia, Sept. 1967, p. iii

23. Ibid., p. iv

24. Ibid., p. v

25. Price, Hayden J., "Student Diversity - ICAF's Unique Solution", Armed Forces Management, March 1969, p. 68

26. Ibid.

27. Industrial College of the Armed Forces, Catalog 1967-1968, Industrial College of the Armed Forces, Fort Lesley J. McNair, Washington, D.C., p. 36

28. Ibid., p. 4

29. Formal Schools Catalog, op. cit., p. III-4

30. U. S. Army Management School, Catalog 1960-1961, U. S. Army Management School, Fort Belvoir, Virginia, pp. 20-23

31. Navy Management Systems Center, Navy Management Systems Center, Naval Postgraduate School, Monterey, California, October 1968, p. 3

32. Ibid.

33. Church, William H., Professor, Naval Postgraduate School, Monterey, California, interview of 1 May 1969

34. Naval Postgraduate School, Monterey, California, April 1968, pp. III-22-23

35. U. S. Naval Postgraduate School Catalogue Academic Year 1957-1958, U. S. Naval Postgraduate School, Monterey, California, pp. 166-167

36. U. S. Naval Postgraduate School Catalogue Academic Year 1958-1959, U. S. Naval Postgraduate School, Monterey, California, p. 164

37. U. S. Naval Postgraduate School Catalogue Academic Year 1959-1960, U. S. Naval Postgraduate School, Monterey, California, pp. M-4-5

38. U. S. Naval Postgraduate School Catalogue Academic Year 1960-1961, U. S. Naval Postgraduate School, Monterey, California, pp. M-4-5

39. U. S. Naval Postgraduate School Catalogue Academic Year 1961-1962, U. S. Naval Postgraduate School, Monterey, California, pp. M-3-5

40. U. S. Naval Postgraduate School Catalogue Academic Year 1962-1963, U. S. Naval Postgraduate School, Monterey, California, pp. M-3-6

41. U. S. Naval Postgraduate School Catalogue Academic Year 1963-1964, U. S. Naval Postgraduate School, Monterey, California, pp. 35-36

42. U. S. Naval Postgraduate School Catalogue Academic Year 1964-1965, U.S. Naval Postgraduate School, Monterey, California, pp. 35-36

43. U. S. Naval Postgraduate School Catalogue Academic Year 1965-1966, U. S. Naval Postgraduate School, Monterey, California, p. 42

44. U. S. Naval Postgraduate School Catalogue Academic Year 1966-1967, U. S. Naval Postgraduate School, Monterey, California, p. 49

45. Naval Postgraduate School Catalogue Academic Year 1967-1968, Naval Postgraduate School, Monterey, California, p. 51

46. Naval Postgraduate School Catalogue Academic Year 1968-1970, Naval Postgraduate School, Monterey, California, p. 48

47. Ibid., para. 1, p. 48

48. U. S. Naval Postgraduate School Catalogue Academic Year 1957-1958, op. cit., p. 166

APPENDIX (14)

BIBLIOGRAPHY

BIBLIOGRAPHY

1. Air University Catalog 1968-1969, Air University, Maxwell AFB, Alabama
2. Catalogue, Academic Year 1969, 45th Class, Armed Forces Staff College, Armed Forces Staff College, Norfolk, Virginia
3. Cook, Fred J., The Warfare State, Macmillan Company, New York, 1962
4. Formal Schools Catalog, Bureau of Naval Personnel, NAVPERS 91769-G, Government Printing Office
5. Grusky, Oscar, "The Effects of Succession: a Comparative Study of the Military and Business Organizations", Morris Janowitz, ed., The New Military, Russell Sage Foundation, New York, 1964
6. Hayward, John T., "President's Hour", Lecture, U. S. Naval War College, Newport, Rhode Island, 2 October 1967
7. Industrial College of the Armed Forces, Catalog 1967-1968, Industrial College of the Armed Forces, Fort Lesley J. McNair, Washington, D. C.
8. Martin, Robert W. Jr., Unpublished Research Paper, "Motivational Aspects of the Management Curriculum, First Two Quarters, Naval Postgraduate School", December 1968
9. Naval Postgraduate School, Monterey, California, April 1968, (An information booklet)
10. Naval Postgraduate School Catalogue Academic Year 1967-1968, Naval Postgraduate School, Monterey, California
11. Naval Postgraduate School Catalogue Academic Year 1968-1970, Naval Postgraduate School, Monterey, California

12. Navy Management Systems Center, Naval Postgraduate School, Monterey, California, October 1968

13. Price, Hayden J., "Student Diversity - ICAF's Unique Solution", Armed Forces Management, March 1969

14. Purtell, Joseph M., "Effect of the Development of Naval Officer Executives Upon Senior Officer Retention", Naval War College Review, Newport, Rhode Island, June 1968

15. Raymond, Jack, Power At The Pentagon, Harper and Row, New York, 1964

16. Raymond, Jack, "Growing Threat of Our Military-Industrial Complex", Harvard Business Review, May-June, 1968

17. Syllabus, Amphibious Warfare Course, 1-69 & 2-69, Marine Corps Amphibious Warfare School, Education Center, Marine Corps Development and Education Command, Quantico, Virginia, May 1968

18. Syllabus, Marine Corps Command and Staff College, Academic Year 1967-1968, Marine Corps Command and Staff College, Marine Corps Educational Center, Marine Corps Schools, Quantico, Virginia, September 1967

19. Twining, Nathan F., Neither Liberty Nor Safety, Holt, Rinehart and Winston, New York, 1966

20. U. S. Army Management School, Catalog 1960-1961, U. S. Army Management School, Fort Belvoir, Virginia

21. United States Naval Academy Catalogue of Information, 1964-1965, U. S. Government Printing Office, 1964

22. United States Naval Academy Catalogue 1965-1966, U. S. Government Printing Office, 1965

23. United States Naval Academy Catalogue 1968-1969, United States Naval Academy, Annapolis, Maryland

24. U. S. Naval War College, Newport, Rhode Island, 1966-1968, U. S. Naval War College, Newport, Rhode Island

25. U. S. Naval Postgraduate School Catalogue Academic Year 1957-1958, U. S. Naval Postgraduate School, Monterey, California

26. U. S. Naval Postgraduate School Catalogue Academic Year 1958-1959, U. S. Naval Postgraduate School, Monterey, California

27. U. S. Naval Postgraduate School Catalogue Academic Year 1959-1960, U. S. Naval Postgraduate School, Monterey, California

28. U. S. Naval Postgraduate School Catalogue Academic Year 1960-1961, U. S. Naval Postgraduate School, Monterey, California

29. U. S. Naval Postgraduate School Catalogue Academic Year 1961-1962, U. S. Naval Postgraduate School, Monterey, California

30. U. S. Naval Postgraduate School Catalogue Academic Year 1962-1963, U. S. Naval Postgraduate School, Monterey, California

31. U. S. Naval Postgraduate School Catalogue Academic Year 1963-1964, U. S. Naval Postgraduate School, Monterey, California

32. U. S. Naval Postgraduate School Catalogue Academic Year 1964-1965, U. S. Naval Postgraduate School, Monterey, California

33. U. S. Naval Postgraduate School Catalogue Academic Year 1965-1966, U. S. Naval Postgraduate School, Monterey, California

34. U. S. Naval Postgraduate School Catalogue Academic Year 1966-1967, U. S. Naval Postgraduate School, Monterey, California

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